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MIGHTY MITE

THIS IS A UNIVERSAL SET-UP BOOK FOR THE TC114, TC130, TC136, TC142 OR TC154 MIGHTY MITE TUBE CHECKERS. THIS PROTECTIVE COVER IS DESIGNED SO THAT YOU MAY CARRY THE BOOKLET IN THE SMALL COMPARTMENT WITHOUT DAMAGE OR IT CAN BE ATTACHED TO THE COVER TO REPLACE BOOKLETS THAT HAVE BEEN PREVIOUSLY CEMENTED IN THE COVER. NOTE THAT LARGE TYPE IS USED SO THAT INDEXING IS NO LONGER NECESSARY. THIS SAVES WEAR ON THE SET-UP PAGES.

SENCORE
MIGHTY MITE

AMERICA'S MOST POPULAR TUBE TESTER

- ***Fast, Accurate, Never Lets You Down.***
- ***Smaller Than A Portable Typewriter. Weighs Only 9 lbs.***
- ***Rugged All Steel Construction. For Shop or Home.***
- ***New Low Voltage Checks For Nuvistors And Frame Grid Tubes As Recommended By All Tube Manufacturers.***

OPERATING INSTRUCTIONS

Set controls A, B, C and D according to set-up chart and insert tube in socket as indicated in chart. Use plate cap lead if tube has plate cap. Set FUNCTION switch to CAL and adjust CAL control so that meter reads full scale (marked cal.). Set FUNCTION switch to EMISSION and read top scale on meter. If tube reads good emission, set FUNCTION switch to GRID LEAKAGE and read lower scale to check grid leakage.

SHORT TEST

Set FUNCTION switch to SHORT TEST. Rotate switch D through all positions. Short indicator light will glow on both electrodes if tube is shorted or has excessive leakage. Disregard any faint flashes in short indicator. Tubes marked with an asterisk (*) in set-up chart have internal connections that will show up as a short on settings indicated. H-K setting is for heater to cathode leakage (or short) test.

ADDITIONAL TESTS TO MAKE

The Mighty Mites test tubes under the maximum specified filament voltage and under full rated cathode load current. If a tube is *FILAMENT SENSITIVE*, the tube will usually show good on the meter, but may not work in the circuit. This is particularly true in series string sets and circuits that normally operate at their maximum limits. But, if the line voltage is low, the cathode drops in emission level and the

circuit ceases to function. Yet, it can test GOOD in the Mighty Mite and even work perfectly in another set where filament and cathode load current are back at the optimum level.

The test you should make on every tube for *FILAMENT SENSITIVITY* is nothing more than a *LIFE TEST*. When you test the tube for emission, and it reads in the GOOD area of the meter, switch the FILAMENT (A) switch *DOWN* one step (i.e. 6V to 4-5V). A good tube will not budge the meter needle one iota, but a filament sensitive tube will cause the meter reading to drop off quickly.

If the meter reading falls off but still remains in the GOOD area, the tube is still acceptable, but once the meter reading hits the question mark (?) or BAD area, this tube should be replaced.

You should run this quick *LIFE TEST* on all tubes you check. This will give you double insurance that the tube will work in the circuit.

When replacing a costly horizontal output tube in a television receiver, it is a good idea to check the horizontal oscillator tube for emission, filament sensitive cathode, and for warm up time. If the horizontal oscillator tube is slower in warming up due to a weak cathode or filament sensitive cathode, the output tube will draw heavy current and its life will be shortened considerably. Checking the warm up time of the oscillator tube and making sure that it is as fast or faster than the output tube can reduce the chance of a call back later for the same trouble and keep your customer's confidence high in your service ability.

MAGNOVAL BASED TUBES

† All tubes marked with a dagger (†) are magnoval based tubes and are checked in socket number 12 on the Mighty Mite V and in socket number 5 on the Mighty Mites II, III and IV. When checking the magnoval based tubes in socket number 5, DO NOT insert this tube fully into the socket, as the pins are larger in diameter than the novar based tubes. If the tube is inserted fully into the socket it can spread the contacts and cause damage. Instead, hold the tube while making firm contact between the tube pins and socket contacts for the test. This will eliminate any possibility of damage to the socket when checking the magnoval based tubes.

TUBE	A	B	C	D	Skt
1A5	1	F	6	E	1
1A7	1	G	6	E	1
1AB5	1	E	8	F	9
1AB6	1	F	8	D	7
1AC6	1	F	6	D	7
1AE4	1	G	5	F	7
1AF4	1	F	5	F	7
1AF5	1	G	6	F	7
	1	H	6	C	7
*1AG2	1	H	1	K	8
(Disregard Shorts)					
*1AG3	1	H	1	K	8
(Disregard Shorts)					
1AH5	1	G	6	F	7
	1	H	6	C	7
*1AJ2	1	H	4	K	10
(Disregard Shorts)					
1AJ4	1	G	5	F	7
1AM4	1	G	5	F	7
1AN5	1	G	5	F	7
1AQ5	1	G	5	D	7
1AR5	1	G	6	F	7
	1	H	6	C	7
1AS5	1	G	6	F	7
	1	H	6	D	7
*1AU2	1	H	7	A	8
(Disregard Shorts)					
*1AU3	1	J	3	K	1
(Disregard Shorts)					
*1AX2	1	J	1	K	8
(Disregard Shorts)					
1AY2	1	J	6	K	4
(Touch leads into pins 5 and 1 of socket 3 and use cap lead)					
*1B3	1	H	3	K	1
(Disregard Shorts)					

TUBE	A	B	C	D	Skt
1B7	1	G	6	E	1
1B8	1	F	6	E	1
	1	G	6	K	1
	1	G	6	H	1
*1BC2	1	J	6	K	8
(Normal Shorts A, F, H-K)					
*1BH2	1	J	6	K	8
(Normal Shorts A, F, H-K)					
*1BK2	1	J	1	K	8
(Disregard Shorts)					
*1BQ2	1	J	2	K	5
(Disregard Shorts)					
1C3	1	F	2	D	7
1C5	1	F	6	E	1
1C7	2	F	6	E	1
1D5	2	F	6	K	1
1D7	2	F	6	E	1
1D8	1	F	6	E	1
	1	G	6	K	1
	1	G	6	H	1
1DN5	1	F	6	F	7
	1	H	6	D	7
*1DY4	1	D	7	B	4
(Normal Shorts, A, G)					
1E3	1	D	3	A	3
1E4	1	F	6	E	1
1E5	2	G	6	K	1
1E7	2	E	6	D	1
	2	E	6	E	1
1F5	2	E	6	E	1
1F7	2	G	6	K	1
	2	G	6	E	1
	2	G	6	D	1
*1G3	1	F	3	K	1
(Disregard Shorts)					

TUBE	A	B	C	D	Skt
1G4	1	F	6	E	1
1G5	2	E	6	E	1
1G6	1	F	6	D	1
	1	F	6	E	1
*1H2	1	H	1	K	8
(Disregard Shorts)					
1H4	2	F	6	E	1
1H5	1	G	6	K	1
	1	G	6	E	1
1H6	2	F	6	F	1
	2	G	6	E	1
	2	G	6	D	1
*1J3	1	J	3	K	1
(Disregard Shorts)					
1J5	2	E	6	E	1
1J6	2	F	6	D	1
	2	F	6	E	1
*1K3	1	J	3	K	1
(Disregard Shorts)					
1L4	1	F	5	F	7
1L6	1	G	6	D	7
1LA4	1	F	6	F	9
1LA6	1	F	6	D	9
1LB4	1	F	4	F	9
1LB6	1	F	6	F	9
1LC5	1	F	5	F	9
1LC6	1	F	6	D	9
1LD5	1	G	6	D	9
	1	G	6	F	9
1LE3	1	F	5	F	9
1LF3	1	F	5	F	9
1LG5	1	F	5	F	9
1LH4	1	F	6	F	9
	1	G	6	D	9

TUBE	A	B	C	D	Skt
1LN5	1	F	5	F	9
*1N2	1	H	3	K	1
(Disregard Shorts)					
1N5	1	F	6	K	1
1N6	1	F	6	E	1
	1	G	6	F	1
1P5	1	F	6	K	1
1Q5	1	E	6	E	1
1R4	1	H	6	D	9
1R5	1	F	5	D	7
*1R-K31	1	J	6	K	8
(Disregard Shorts)					
*1R-K41	1	J	6	K	8
(Disregard Shorts)					
*1S2	1	H	1	K	8
(Disregard Shorts)					
*1S4	1	F	5	C	7
(Normal Short B, F)					
1S5	1	G	6	F	7
	1	H	6	C	7
1SA6	1	F	6	D	1
1SB6	1	G	6	H	1
	1	G	6	E	1
1T2	1	H	6	K	4
(Insert two tube leads into pin 3 and 4; touch cap lead to top lead on tube)					
1T4	1	F	5	F	7
1T5	1	E	6	E	1
1U4	1	F	5	F	7
1U5	1	G	6	F	7
	1	H	6	D	7
1U6	1	G	6	D	7
*1V2	1	H	3	A	8
(Disregard Shorts)					

TUBE	A	B	C	D	Skt
1W4	1	F	6	F	7
*1X2	1	H	1	K	8
	(Disregard Shorts)				
2AH2	(See last page)				
*2AF4	2	D	7	B	4
	(Normal Short A, G)				
*2AV2	1	H	3	A	8
	(Disregard Shorts)				
2AZ2	2	H	6	K	8
	(Disregard Shorts)				
*2B3	1	H	1	K	1
	(Disregard Shorts)				
*2BA2	1	H	3	A	8
	(Disregard Shorts)				
2BC5	2	E	2	A	4
2BH5	2	F	6	D	6
*2BJ2	2	G	1	K	8
	(Normal Shorts C, F, G)				
*2BN4	2	E	2	G	4
	(Normal Short A, F)				
*2BU2	2	G	9	K	10
	(Disregard Shorts)				
2C22	6	E	7	K	1
2C26	6	E	7	K	1
2C50	12	E	6	A	2
	12	E	6	D	2
2C52	12	F	6	A	2
	12	F	6	D	2
2CN3	2	I	6	K	2
2CW4	2	F	6	D	6
2CY5	2	E	2	A	4
2DF4	2	B	10	H	3
2DS4	2	G	6	D	6
*2DX4	2	D	7	B	4
	(Normal Shorts A, G)				

TUBE	A	B	C	D	Skt
*2DY4	2	D	7	B	4
	(Normal Shorts A, G)				
*2DZ4	2	D	7	B	4
	(Normal Shorts A, G)				
*2E24	3	C	1	E	1
	(Normal Shorts D, F, H-K)				
2E25	6	C	6	E	1
*2E26	6	A	1	E	1
	(Normal Short D, F)				
2E30	6	C	8	A	4
2EA5	2	E	8	A	4
2EG4	2	F	6	D	6
2EN5	2	F	6	B	4
	2	F	6	G	4
2ER5	2	E	8	B	4
2ES5	2	E	8	B	4
2EV5	2	E	8	A	4
2FH5	2	E	8	B	4
2FQ5	2	E	8	B	4
2FS5	2	D	2	A	4
2FV6	2	E	2	A	4
2FY5	2	E	1	B	4
2GK5	2	E	8	B	4
2GU5	2	E	2	A	4
2GW5	2	D	7	B	4
2HA5	2	E	2	A	4
2HK5	2	E	2	A	4
2HM5	2	D	2	A	4
2HQ5	2	E	2	A	4
2HR8	2	F	6	J	3
*2J2	2	H	1	K	8
	(Disregard Shorts)				
2N-H11	2	G	6	D	6
2N-H12	2	F	6	D	6

TUBE	A	B	C	D	Skt
*2T4	2	D	7	B	4
(Normal Short, A, G)					
*2V2	2	J	5	K	1
(Disregard Shorts)					
2V3	2	H	6	K	1
*2W3	2	B	6	D	1
(Normal Short H, H-K)					
2X3	2	B	6	K	1
*3A2	3	H	1	K	8
(Disregard Shorts)					
*3A3	3	H	9	K	1
(Disregard Shorts)					
*3A4	3	F	5	D	7
(Normal Short B, F)					
3A5	3	F	4	C	7
	3	F	4	E	7
3A8	3	G	1	K	1
	3	G	1	H	1
	3	G	1	E	1
*3AF4	3	D	7	B	4
(Normal Short A, G)					
3AJ8	3	E	6	B	3
	3	F	6	J	3
3AL5	3	E	6	B	4
	3	E	6	G	4
*3AT2	3	H	9	K	10
(Disregard Shorts)					
3AU6	3	D	6	A	4
3AV6	3	F	6	A	4
	3	G	6	E	4
	3	G	6	F	4
*3AW2	3	J	9	K	10
(Disregard Shorts)					
*3AW3	3	H	9	K	1
(Disregard Shorts)					
3B5	3	E	9	E	1
3B7	3	F	4	C	2
	3	F	4	F	2
(Normal Shorts A, H-K)					
3BA6	3	D	6	A	4
3BC5	3	E	2	A	4
3BE6	3	D	6	A	4
(Normal Short A, F)					
*3BF2	3	G	11	K	10
(Disregard Shorts except H-K)					
*3BH2	3	J	6	K	8
(Normal Shorts A, F, H-K)					
*3BL2	3	J	9	K	10
(Disregard Shorts)					
*3BM2	3	H	9	K	10
(Disregard Shorts)					
3BN2	3	J	9	K	10
*3BN4	3	E	2	G	4
(Normal Shorts A, F)					
3BN6	3	H	6	E	4
(Emission and Short Test)					
	3	H	6	B	4
(Grid Leakage Test)					
*3BS2	3	J	9	K	10
(Disregard Shorts)					
3BU8	3	D	6	G	3
3BX6	3	D	1	B	3
3BY6	3	D	6	A	4
3BY7	3	D	3	B	3
3BZ6	3	D	6	A	4
*3C2	3	H	5	K	1
(Disregard Shorts)					
3C4	3	G	5	F	7
3C5	3	F	9	E	1
3C6	3	F	8	D	9
	3	F	8	E	9

TUBE	A	B	C	D	Skt
*3CA3	3	H	3	K	1
(Disregard Shorts)					
3CB6	3	D	6	A	4
3CE5	3	E	2	A	4
3CF6	3	D	6	A	4
3CN3	3	J	6	K	1
*3CQ3	3	H	6	K	1
(Disregard Shorts)					
3CS6	3	D	6	A	4
*3CV3	3	J	1	K	1
(Disregard Shorts)					
3CU3	3	H	9	K	1
*3CX3	3	J	2	K	2
(Disregard Shorts)					
3CY5	3	E	2	A	4
*3CZ3	3	H	3	K	1
(Disregard Shorts)					
3D6	1	E	8	F	9
3D21	12	C	1	F	1
*3DB3	3	J	3	K	1
(Disregard Shorts)					
*3DC3	3	J	3	K	1
(Normal Shorts A, E, G)					
3DG4	(See last page)				
3DK6	3	D	6	A	4
3DT6	3	E	6	A	4
*3DX4	3	D	7	B	4
(Normal Shorts A, G)					
*3DY4	3	D	7	B	4
(Normal Shorts A, G)					
3DZ4	3	D	7	B	4
(Normal Shorts A, G)					
3E5	3	F	5	F	7
3E6	3	F	5	F	9
*3E22	12	A	5	B	2
(Normal Shorts A, C, F)					

TUBE	A	B	C	D	Skt
3EA5	3	E	8	A	4
3EH7	3	D	3	B	3
3EJ7	3	D	3	B	3
3ER5	3	E	8	B	4
3ES5	3	E	8	B	4
3EV5	3	E	8	A	4
3FH5	3	E	8	B	4
3FQ5	3	E	8	B	4
3FS5	3	D	2	A	4
3FY5	3	E	1	B	4
3GK5	3	E	8	B	4
3GS8	3	D	6	G	3
3GU5	3	D	2	A	4
3GW5	3	D	7	B	4
3HA5	3	D	2	A	4
3HK5	3	E	2	A	4
3HM5	3	D	2	A	4
3HM6	3	D	1	B	3
3HQ5	3	E	2	A	4
3HS8	3	D	6	G	3
3HT6	3	D	1	B	3
3JC6	3	D	1	B	3
3JD6	3	D	1	B	3
3JH6	3	D	6	A	4
3KF8	3	D	6	G	3
3KT6	3	D	3	B	3
3LE4	3	E	8	F	9
3LF4	3	E	8	F	9
3M-P26	3	F	6	A	4
3M-R24	3	D	6	A	4
3M-V7	3	D	6	A	4
*3Q4	3	F	5	C	7
(Normal Short B, F)					
3Q5	3	E	9	E	1

TUBE	A	B	C	D	Skt
*3S4	3	F	5	C	7
(Normal Short B, F)					
3V4	3	F	5	F	7
*3W4	3	F	5	C	7
(Normal Short B, F)					
*3Z4	3	F	5	C	7
(Normal Short B, F)					
4A6	4	G	9	D	1
	4	G	9	E	1
*4AF4	4	D	7	B	4
(Normal Shorts A, G)					
4AU6	4	D	6	A	4
4AV6	4	F	6	A	4
	4	G	6	E	4
	4	G	6	F	4
4BA6	4	D	6	A	4
4BC5	4	E	2	A	4
4BC8	4	E	6	B	3
	4	E	6	G	3
4BE6	4	D	6	A	4
4BL8	4	D	6	B	3
	4	D	6	J	3
*4BN4	4	E	2	G	4
(Normal Short A, F)					
4BN6	4	H	6	E	4
(Emission and Short Test)					
	4	H	6	B	4
(Grid Leakage Test)					
4BQ7	4	E	6	B	3
	4	E	6	G	3
4BS8	4	E	6	B	3
	4	E	6	G	3
4BU8	4	D	6	G	3
4BX8	4	E	6	B	3
	4	E	6	G	3

TUBE	A	B	C	D	Skt
4BZ6	4	D	6	A	4
4BZ7	4	E	6	B	3
	4	E	6	G	3
4BZ8	4	E	6	B	3
	4	E	6	G	3
4CB6	4	D	6	A	4
4CE5	4	E	2	A	4
4CM4	4	E	3	F	8
4CS6	4	E	6	A	4
4CX7	4	E	9	B	3
	4	E	9	G	3
4CY5	4	E	2	A	4
4DE6	4	D	6	A	4
4DK6	4	D	6	A	4
4DT6	4	E	6	A	4
4EH7	4	D	3	B	3
4EJ7	4	D	3	B	3
4ES8	4	D	6	B	3
	4	D	6	G	3
4EW6	4	D	6	A	4
4FS7	4	D	6	B	3
	4	D	6	F	3
4GJ7	4	D	3	B	3
	4	E	3	J	3
4GK5	4	E	8	B	4
4GM6	4	D	6	A	4
4GS7	4	D	3	A	3
	4	D	3	J	3
4GS8	4	D	6	G	3
4GW5	4	D	7	B	4
4GX7	4	D	3	B	3
	4	D	3	J	3
4GZ5	4	C	5	B	4
4HA5	4	E	2	A	4

TUBE	A	B	C	D	Skt
4HA7	4	E	5	J	10
	4	E	5	A	10
4HC7	4	D	8	J	10
	4	G	8	A	10
4HG8	4	D	3	B	3
	4	D	3	F	3
4HK5	4	E	2	A	4
4HM5	4	D	2	A	4
4HM6	4	D	1	B	3
4HQ5	4	E	2	A	4
4HR8	4	F	6	J	3
4HS8	4	D	6	G	3
4HT6	4	D	1	B	3
4JC6	4	D	1	B	3
4JD6	4	D	1	B	3
4JH6	4	D	6	A	4
4JH6	4	D	6	A	3
4JK6	4	D	6	A	4
4JL6	4	D	6	A	4
4KE8	4	D	6	J	3
	4	E	6	B	3
4KF8	4	D	6	G	3
4KN8	4	D	6	B	3
	4	D	6	G	3
4KT6	4	D	3	B	3
4LJ8	4	D	3	A	3
	4	D	3	J	3
4LU6	4	C	6	A	4
4MK8	4	E	6	G	3
4M-P2	4	C	6	A	4
4M-P12	5	C	6	A	4
4R-HH2	4	E	6	B	3
	4	E	6	G	3

TUBE	A	B	C	D	Skt
4R-HH8	4	D	6	B	3
	4	D	6	G	3
5A6	5	C	10	G	3
*5AF4	5	D	7	B	4
(Normal Short A, G)					
5AM8	5	D	6	B	3
	5	F	6	H	3
5AN8	5	D	6	B	3
	5	D	6	H	3
5AQ4	5	B	6	D	1
	5	B	6	F	1
5AQ5	5	C	8	A	4
*5AR4	5	A	1	D	1
	5	A	1	F	1
(Normal Short H, H-K)					
*5AS4	5	A	6	D	1
	5	A	6	F	1
(Normal Short H, H-K)					
5AS8	5	D	6	B	3
	5	F	6	F	3
*5AT4	5	A	6	D	1
	5	A	6	F	1
(Normal Short H, H-K)					
5AT8	5	D	6	A	3
	5	D	6	J	3
*5AU4	5	A	6	D	1
	5	A	6	F	1
(Normal Short H, H-K)					
5AV8	5	E	6	B	3
	5	E	6	F	3
*5AW4	5	A	6	D	1
	5	A	6	F	1
(Normal Short H, H-K)					

TUBE	A	B	C	D	Skt
*5AX4	5	A	6	D	1
	5	A	6	F	1
(Normal Short H, H-K)					
*5AZ4	5	B	6	D	9
	5	B	6	F	9
(Normal Short B, H-K)					
*5B8	5	D	6	B	3
	5	D	6	F	3
(Permissible Short A Only)					
5BC3	(See last page)				
*5BE8	5	D	6	A	3
	5	D	6	J	3
(Permissible Short C Only)					
5BK7	5	E	6	B	3
	5	E	6	G	3
5BM8	5	C	6	C	3
	5	F	6	A	3
*5BQ5	5	C	1	B	3
(Permissible Short F, H and one other Pin)					
5BQ7	5	E	6	B	3
	5	E	6	G	3
5BR8	5	D	6	A	3
	5	D	6	J	3
5BS8	5	E	6	B	3
	5	E	6	G	3
5BT8	5	D	6	H	3
	5	G	6	B	3
	5	G	6	A	3
5BW8	5	D	6	F	3
	5	F	6	C	3
	5	F	6	A	3
5BZ7	5	E	6	B	3
	5	E	6	G	3

TUBE	A	B	C	D	Skt
*5CG4	5	A	6	D	1
	5	A	6	F	1
(Normal Short H, H-K)					
5CG8	5	E	3	A	3
	5	E	3	J	3
5CL8	5	D	6	A	3
	5	D	6	J	3
5CM6	5	C	7	C	3
5CM8	5	E	6	B	3
	5	F	6	J	3
5CQ8	5	D	6	J	3
	5	D	6	B	3
5CR8	5	D	6	B	3
	5	E	6	J	3
*5CU4	5	A	6	D	1
	5	A	6	F	1
(Normal Short H, H-K)					
*5CZ5	5	C	7	C	3
(Permissible Short H and one other Pin)					
*5DH8	5	D	6	J	3
	5	D	6	A	3
(Permissible Short C Only)					
*5DN4	5	A	6	D	1
	5	A	6	F	1
5EA8	5	D	6	J	3
	5	D	6	B	3
5EH8	5	D	1	B	3
	5	D	1	G	3
5ES8	5	E	6	B	3
	5	E	6	G	3
5EU8	5	D	6	B	3
	5	D	6	G	3
5EW6	5	D	6	A	4

TUBE	A	B	C	D	Skt
5FG7	5	D	3	J	3
	5	E	3	A	3
5FV8	5	D	6	A	3
	5	D	6	J	3
5GH8	5	D	6	B	3
	5	D	6	J	3
5GJ7	5	D	3	B	3
	5	E	3	J	3
5GM6	5	D	6	A	4
5GS7	5	E	3	A	3
	5	E	3	J	3
5GX6	5	E	6	A	4
5GX7	5	D	3	B	3
	5	D	3	J	3
5HA7	5	E	5	J	10
	5	E	5	A	10
5HB7	5	D	3	B	3
	5	D	3	J	3
5HC7	5	D	8	J	10
	5	G	8	A	10
5HG8	5	D	3	B	3
	5	D	3	F	3
5HZ6	5	F	6	A	4
5J6	5	E	6	E	4
	5	E	6	F	4
5JK6	5	D	6	A	4
5KD8	5	D	6	B	3
	5	D	6	J	3
5KE8	5	D	6	J	3
	5	E	6	B	3
5KZ8	5	D	6	B	3
	5	D	6	J	3
5LJ8	5	D	3	A	3
	5	D	3	J	3

TUBE	A	B	C	D	Skt
5MB8	5	D	6	A	3
	5	E	6	J	3
5M-HH3	5	E	6	E	4
	5	E	6	F	4
5M-K9	5	B	6	E	4
5MQ8	5	E	6	B	3
	5	D	6	J	3
*5R4	5	A	6	D	1
	5	A	6	F	1
(Normal Short H, H-K)					
5R-DDHI	5	E	6	A	3
	5	E	6	F	3
5R-HR1	5	D	6	B	3
	5	D	6	J	3
5R-HPI	5	D	6	B	3
	5	D	6	J	3
5R-K16	5	A	6	A	3
	5	A	6	H	3
*5T4	5	A	6	D	1
	5	A	6	F	1
(Normal Short H, H-K)					
5T8	5	F	6	H	3
	5	G	6	B	3
	5	G	6	F	3
	5	G	6	A	3
*5U4	5	A	6	D	1
	5	A	6	F	1
(Normal Short H, H-K)					
5U8	5	D	6	B	3
	5	D	6	J	3
5U9	5	D	6	C	11
	5	D	6	K	11
*5V3	5	A	6	D	1
	5	A	6	F	1
(Normal Short H, H-K)					

TUBE	A	B	C	D	Skt
*5V4	5	B	6	D	1
	5	B	6	F	1
(Normal Short H, H-K)					
5V6	5	C	6	E	1
5V9	5	D	6	H	11
	5	E	6	C	11
*5W4	5	B	6	D	1
	5	B	6	F	1
(Normal Short H, H-K)					
5X4	5	A	6	C	2
	5	A	6	E	2
5X8	5	E	6	B	3
	5	E	6	G	3
5X9	5	D	6	C	11
	5	E	6	K	11
*5Y3	5	B	6	D	1
	5	B	6	F	1
(Normal Short H, H-K)					
5Y4	5	B	6	C	2
	5	B	6	E	2
*5Z4	5	A	6	D	1
	5	A	6	F	1
(Normal Short H, H-K)					
6A5	6	C	9	E	1
6A8	6	E	6	E	1
6AB4	6	E	6	F	4
6AB7	6	D	6	D	1
6AB8	6	D	6	J	3
	6	F	6	B	3
6AB9	6	D	6	A	11
	6	D	6	G	11
6AC5	6	F	6	E	1
6AC7	6	D	6	D	1

TUBE	A	B	C	D	Skt
6AC9	6	D	6	B	10
	6	D	6	C	10
	6	D	6	J	10
6AC10	6	E	6	A	10
	6	E	6	G	10
	6	E	6	J	10
6AC11	6	E	6	C	10
	6	E	6	F	10
	6	C	6	H	10
6AD5	6	F	6	E	1
6AD7	6	G	6	A	1
	6	F	6	E	1
6AD8	6	E	6	B	3
	6	G	6	H	3
	6	G	6	G	3
6AD10	6	E	6	C	10
	6	C	6	H	10
6AE5	6	G	6	E	1
6AE6	6	F	6	E	1
6AE7	6	F	6	D	1
	6	F	6	F	1
6AE8	6	E	6	B	3
	6	F	6	G	3
*6AF3	6	A	2	J	3
(Disregard Shorts except H-K)					
*6AF4	6	D	7	B	4
(Normal Short A, G)					
6AF5	6	F	6	E	1
*6AF9	6	C	6	H	11
	6	D	6	A	11
(Normal Shorts B only)					
6AF10	6	D	6	C	10
	6	E	6	K	10

TUBE	A	B	C	D	Skt
6AF11	6	C	6	A	10
	6	F	6	F	10
	6	F	6	C	10
6AG5	6	E	2	A	4
6AG6	6	F	6	E	1
6AG7	6	C	6	D	1
6AG9	6	E	6	E	10
	6	C	6	A	10
6AG10	6	D	6	A	10
6AG11	6	E	6	H	10
	6	E	6	E	10
	6	F	6	K	10
	6	F	6	C	10
6AH4	6	C	6	A	1
6AH5	6	F	6	F	1
6AH6	6	D	6	A	4
6AH7	6	F	6	A	2
	6	F	6	E	2
6AH9	6	E	5	B	10
	6	C	5	F	10
6AJ5	6	G	2	A	4
6AJ7	6	E	6	D	1
6AJ8	6	E	6	B	3
	6	E	6	J	3
6AJ9	6	C	6	C	11
	6	D	6	K	11
6AK5	6	E	2	A	4
6AK6	6	D	6	A	4
6AK7	6	C	6	D	1
6AK8	6	F	6	H	3
	6	G	6	F	3
	6	G	6	B	3
	6	G	6	A	3

TUBE	A	B	C	D	Skt
6AK9	6	E	7	C	10
	6	E	7	K	10
	6	B	7	J	10
6AK10	6	E	6	A	10
	6	E	6	G	10
	6	E	6	J	10
*6AL3	6	A	7	C	8
(Use second setting if first setting gives no reading)					
*6AL3	6	A	2	J	3
(Disregard Shorts except H-K)					
6AL5	6	E	6	B	4
	6	E	6	G	4
6AL6	6	E	6	E	1
6AL9	6	E	9	E	10
	6	C	9	A	10
6AL11	6	C	6	H	10
	6	D	6	C	10
6AM5	6	D	6	A	4
6AM6	6	E	6	A	4
6AM8	6	D	6	B	3
	6	G	6	H	3
*6AN4	6	D	7	B	4
(Normal Short A, G)					
6AN5	6	C	2	A	4
6AN6	6	F	6	B	7
	6	F	6	C	7
	6	F	6	D	7
	6	F	6	E	7
6AN7	6	E	6	B	3
	6	F	6	J	3
6AN8	6	D	6	B	3
	6	D	6	H	3
*6AQ4	6	E	7	A	4
(Normal Short B, E)					

TUBE	A	B	C	D	Skt
6AQ5	6	C	8	A	4
6AQ6	6	F	6	A	4
	6	G	6	F	4
	6	G	6	E	4
6AQ7	6	F	6	D	2
	6	G	6	C	2
	6	G	6	A	2
6AQ8	6	D	6	B	3
	6	D	6	G	3
6AR5	6	C	6	A	4
*6AR6	6	G	6	E	2
(Make Emission and Short Test only; Normal Short F, H-K)					
6AR7	6	F	6	K	9
	6	G	6	F	9
	6	G	6	E	9
6AR8	6	D	6	F	3
6AR11	6	D	6	E	10
	6	D	6	K	10
6AS5	6	C	5	B	4
6AS6	6	E	6	A	4
6AS7	6	A	6	A	2
	6	A	6	D	2
6AS8	6	D	6	B	3
	6	F	6	E	3
6AS11	6	D	6	A	10
	6	D	6	C	10
	6	D	6	F	10
6AT6	6	F	6	A	4
	6	G	6	E	4
	6	G	6	F	4
6AT7	6	E	6	B	3
	6	E	6	G	3
6AT8	6	D	6	A	3
	6	D	6	J	3

TUBE	A	B	C	D	Skt
6AU4	6	A	2	E	2
6AU5	6	A	6	A	1
6AU6	6	D	6	A	4
6AU7	6	D	10	B	3
	6	D	10	G	3
6AU8	6	D	6	G	3
	6	D	6	B	3
6AV4	6	A	6	A	4
	6	A	6	F	4
6AV5	6	A	6	A	1
6AV6	6	F	6	A	4
	6	G	6	E	4
	6	G	6	F	4
6AV8	6	D	6	B	3
	6	D	6	H	3
6AV11	6	D	6	A	10
	6	D	6	G	10
	6	D	6	J	10
6AW7	6	F	6	B	2
	6	G	6	C	2
	6	G	6	D	2
6AW8	6	D	6	G	3
	6	F	6	B	3
*6AX2	6	J	11	K	8
(Disregard Shorts)					
6AX3	6	A	11	D	10
6AX4	6	A	2	E	2
6AX5	6	B	6	C	1
	6	B	6	E	1
6AX6	6	A	6	C	1
	6	A	6	E	1
6AX7	6	F	10	B	3
	6	F	10	G	3
6AX8	6	D	6	B	3
	6	D	6	J	3

TUBE	A	B	C	D	Skt
*6AY3	6	A	8	B	5
(Disregard Shorts except H-K)					
6AY11	6	E	6	K	10
	6	E	6	C	10
	6	F	6	H	10
	6	F	6	E	10
6AZ8	6	D	6	F	3
	6	D	6	J	3
6B3	6	B	6	H	8
6B4	6	C	6	E	1
6B6	6	F	6	K	1
	6	G	6	E	1
	6	G	6	D	1
6B8	6	E	6	K	1
	6	G	6	E	1
	6	G	6	D	1
6B10	6	E	6	C	10
	6	E	6	E	10
	6	F	6	H	10
	6	F	6	K	10
6BA3	6	A	8	B	5
(Disregard Shorts except H-K)					
6BA6	6	D	6	A	4
6BA7	6	D	6	B	3
6BA8	6	D	6	G	3
	6	D	6	B	3
6BA11	6	D	6	J	10
	6	E	6	D	10
6BC4	6	D	8	C	8
6BC5	6	E	2	A	4
6BC7	6	E	6	B	3
	6	E	6	F	3
	6	E	6	H	3
6BC8	6	E	6	B	3
	6	E	6	G	3

TUBE	A	B	C	D	Skt
6BD4	6	G	6	E	1
6BD5	6	A	6	A	1
6BD6	6	D	6	A	4
6BD7	6	F	6	H	3
	6	G	6	F	3
	6	G	6	B	3
6BD11	6	D	6	A	10
	6	E	6	C	10
	6	F	6	F	10
6BE3	6	A	4	K	10
6BE6	6	D	6	A	4
6BE7	6	F	9	G	3
*6BE8	6	D	6	A	3
	6	D	6	J	3
(Permissible Short C Only)					
6BF5	6	C	8	A	4
6BF6	6	F	6	A	4
	6	G	6	E	4
	6	G	6	F	4
6BF8	6	F	6	A	3
	6	F	6	B	3
	6	F	6	C	3
	6	F	6	G	3
	6	F	6	H	3
	6	F	6	J	3
6BF11	6	C	6	H	10
	6	D	6	C	10
6BG6	6	A	6	E	1
*6BH3	6	A	8	B	5
(Disregard Shorts except H-K)					
6BH5	6	F	9	B	3
6BH6	6	E	6	A	4
6BH8	6	D	6	G	3
	6	D	6	B	3

TUBE	A	B	C	D	Skt
6BH11	6	D	6	D	10
	6	D	6	F	10
	6	D	6	H	10
6BJ3	6	A	4	K	10
6BJ5	6	C	6	A	4
*6BJ6	6	D	6	A	4
(Disregard Shorts except H-K)					
6BJ7	6	F	6	B	3
	6	F	6	F	3
	6	F	6	H	3
6BJ8	6	D	6	H	3
	6	E	6	F	3
	6	E	6	A	3
*6BK4	6	G	3	E	1
(Disregard Shorts except H-K)					
6BK5	6	C	8	C	3
6BK6	6	F	6	A	4
	6	G	6	E	4
	6	G	6	F	4
6BK7	6	E	6	B	3
	6	E	6	G	3
6BK8	6	E	2	J	3
6BK11	6	G	9	A	10
	6	G	9	G	10
	6	G	9	J	10
6BL4	6	A	2	E	2
6BL7	6	C	6	A	2
	6	C	6	D	2
6BL8	6	D	6	B	3
	6	D	6	J	3
6BM5	6	C	8	A	4
6BM8	6	C	6	C	3
	6	F	6	A	3
*6BN4	6	E	2	G	4
(Normal Short A, F)					

TUBE	A	B	C	D	Skt
6BN5	6	C	3	B	3
6BN6	6	H	6	E	4
(Emission and Short Test)					
	6	H	6	B	4
(Grid Leakage Test)					
6BN7	6	C	6	G	3
	6	F	6	B	3
6BN8	6	D	6	A	3
	6	D	6	F	3
	6	E	6	H	3
6BN11	6	E	6	C	10
	6	E	6	G	10
*6BQ5	6	C	1	B	3
(Permissible Short F, H and one other Pin)					
6BQ6	6	A	6	E	1
6BQ7	6	E	6	B	3
	6	E	6	G	3
6BR3	6	A	1	J	8
(Disregard Shorts except H-K)					
6BR7	6	F	1	B	3
6BR8	6	D	6	J	3
	6	D	6	A	3
*6BS3	6	A	8	B	5
(Disregard Shorts except H-K)					
6BS5	6	C	1	B	3
6BS7	6	G	1	K	3
6BS8	6	E	6	B	3
	6	E	6	G	3
6BT6	6	F	6	A	4
	6	G	6	C	4
	6	G	6	F	4
6BT8	6	D	6	H	3
	6	G	6	B	3
	6	G	6	A	3

TUBE	A	B	C	D	Skt
*6BU4	6	G	3	E	1
(Disregard All Shorts except H-K)					
6BU5	6	G	2	D	2
6BU6	6	E	6	A	4
	6	G	6	C	4
	6	G	6	F	4
6BU8	6	D	6	G	3
6BV7	6	E	8	H	3
	6	G	8	F	3
	6	G	8	A	3
6BV8	6	E	6	B	3
	6	E	6	J	3
	6	E	6	F	3
6BV11	6	F	6	F	10
	6	F	6	G	10
*6BW3	6	A	4	K	10
(Disregard Shorts except H-K)					
6BW4	6	B	6	A	3
	6	B	6	G	3
*6BW6	6	C	1	B	3
* (Permissible Short F and one other Pin)					
6BW7	6	D	3	B	3
6BW8	6	E	6	F	3
	6	F	6	C	3
	6	F	6	A	3
6BW11	6	D	6	A	10
	6	D	6	C	10
6BX4	6	A	6	A	4
	6	A	6	F	4
6BX6	6	D	1	B	3
6BX7	6	C	6	A	2
	6	C	6	D	2
6BX8	6	E	6	B	3
	6	E	6	G	3

TUBE	A	B	C	D	Skt
6BY5	6	A	3	D	1
	6	A	3	E	1
6BY6	6	D	6	A	4
6BY7	6	D	3	B	3
6BY8	6	D	6	A	3
	6	F	6	F	3
6BY11	6	B	6	C	10
	6	G	6	H	10
*6BZ3	6	A	4	K	10
(Disregard Shorts except H-K)					
6BZ6	6	D	6	A	4
6BZ7	6	E	6	B	3
	6	E	6	G	3
6BZ8	6	E	6	B	3
	6	E	6	G	3
6C4	6	E	1	F	4
6C5	6	E	6	E	1
6C8	6	F	6	E	1
	6	F	6	K	1
6C9	6	E	6	A	3
	6	E	6	G	3
6C10	6	F	9	A	10
	6	F	9	G	10
	6	F	9	J	10
6C12	6	E	6	B	3
	6	E	6	J	3
6CA4	6	A	7	A	8
	6	A	7	G	8
6CA5	6	C	5	B	4
6CA7	6	A	6	E	1
6CA11	6	E	6	C	10
	6	E	6	F	10
	6	C	6	K	10
*6CB5	6	A	5	D	1
(Normal Short A, C, F, H)					

TUBE	A	B	C	D	Skt
6CB6	6	D	6	A	4
6CB11	6	D	6	C	10
	6	C	6	A	10
6CD3	6	A	4	K	10
6CD6	6	A	6	E	1
*6CE3	6	A	4	K	10
(Disregard All Shorts except H-K)					
6CE5	6	E	2	A	4
6CF6	6	D	6	A	4
6CF8	6	F	6	J	3
*6CG3	6	A	4	K	10
(Disregard Shorts except H-K)					
6CG6	6	E	6	A	4
6CG7	6	E	6	B	3
	6	E	6	G	3
6CG8	6	E	3	A	3
	6	E	3	J	3
*6CH3	6	A	2	G	5
(Disregard All Shorts except H-K)					
*6CH6	6	C	1	B	3
(Permissible Shorts F, G and one other Pin)					
6CH7	6	E	9	B	3
	6	E	9	G	3
6CH8	6	E	6	G	3
	6	E	6	H	3
6CJ3	6	A	8	B	5
*6CJ6	6	C	1	B	3
(Permissible Shorts F, G and H or J)					
*6CK3	6	A	2	G	5
(Disregard Shorts except H-K)					
6CK4	6	C	3	A	1
6CK6	6	C	6	B	3
*6CL3	6	A	2	G	5
(Disregard Shorts except H-K)					

TUBE	A	B	C	D	Skt
*6CL5	6	A	5	D	1
(Normal Short A, C, F, H)					
*6CL6	6	C	10	B	3
(Normal Short C, H)					
6CL8	6	D	6	A	3
	6	D	6	J	3
6CM3	6	A	2	O	5
6CM4	6	E	3	F	8
*6CM5	6	A	3	E	1
(Permissible Short A and one other Pin)					
6CM6	6	C	7	C	3
6CM7	6	D	2	G	3
	6	D	2	H	3
6CM8	6	E	6	B	3
	6	F	6	J	3
6CN6	6	C	6	E	1
6CN7	6	F	10	A	3
	6	F	10	B	3
	6	F	10	G	3
6CQ4	6	A	2	E	2
6CQ6	6	E	6	A	4
6CQ8	6	D	6	B	3
	6	D	6	J	3
*6CR5	6	C	9	C	3
(Normal Short A, B, F, G)					
6CR6	6	E	6	G	4
	6	G	6	B	4
*6CR8	6	D	6	B	3
	6	D	6	J	3
(Permissible Short H Only)					
*6CS5	6	C	7	C	3
(Permissible Short H and one other Pin)					
6CS6	6	D	6	A	4

TUBE	A	B	C	D	Skt
6CS7	6	C	2	C	3
	6	F	2	G	3
6CS8	6	D	6	B	3
	6	E	6	J	3
*6CT3	6	A	2	F	3
(Disregard Shorts except H-K)					
6CU5	6	C	5	B	4
6CU6	6	A	6	E	1
*6CU8	6	E	6	G	3
	6	E	6	H	3
(Permissible Short A Only)					
6CW4	6	F	6	D	6
*6CW5	6	C	1	B	3
(Permissible Short F or H, and one other Pin)					
6CW7	6	D	8	F	3
	6	D	8	B	3
6CX7	6	E	9	B	3
	6	E	9	G	3
6CX8	6	C	6	G	3
	6	E	6	B	3
6CY5	6	E	2	A	4
6CY7	6	C	2	C	3
	6	E	2	G	3
*6CZ5	6	C	7	C	3
(Permissible Short H and one other Pin)					
6D4	6	F	6	A	4
6D5	6	C	6	E	1
6D8	6	E	6	E	1
6D10	6	E	9	A	10
	6	E	9	G	10
	6	E	9	J	10
6DA4	6	A	2	E	2
6DA6	6	D	1	B	3
6DA7	6	C	2	C	3
	6	E	2	G	3
*6DB5	6	C	7	C	3
(Normal Short B, G; Permissible Short H and one other Pin)					
6DB6	6	E	6	A	4
6DC6	6	E	6	A	4
6DC8	6	D	6	B	3
	6	G	6	G	3
	6	G	6	H	3
6DE4	6	A	2	E	2
6DE6	6	D	6	A	4
6DE7	6	C	3	B	3
	6	E	3	G	3
6DF12	6	D	6	B	3
	6	G	6	G	3
	6	G	6	H	3
6DG6	6	C	6	E	1
*6DG7	6	D	1	B	3
(Permissible Short F and one other Pin)					
6DJ8	6	D	6	B	3
	6	D	6	G	3
6DK6	6	D	6	A	4
*6DL4	6	H	1	H	3
(Normal Shorts A, C, F, G, J Emission and Shorts Test Only)					
6DL5	6	C	8	A	4
6DM4	6	A	2	E	2
6DM8	6	E	6	F	5
	6	E	6	H	5
	6	E	6	J	5
6DN6	6	A	6	E	1
6DN7	6	C	6	A	2
	6	F	6	D	2

TUBE	A	B	C	D	Skt
6DQ4	6	A	2	E	2
*6DQ5	6	A	5	A	1
(Normal Shorts C, D, E, H)					
6DQ6	6	A	6	E	1
6DR4	6	F	1	F	4
*6DR6	6	D	1	B	3
(Permissible Shorts F, G and one other Pin)					
6DR7	6	C	3	B	3
	6	E	3	G	3
6DR8	6	G	6	H	3
	6	G	6	B	3
	6	G	6	G	3
6DS4	6	G	6	D	6
6DS5	6	C	8	A	4
6DS8	6	F	6	B	3
	6	G	6	J	3
6DT4	6	A	1	E	2
*6DT5	6	C	7	C	3
(Permissible Short H and one other Pin)					
6DT6	6	E	6	A	4
6DT8	6	E	6	B	3
	6	E	6	G	3
*6DW4	6	A	8	B	5
(Disregard Shorts except H-K)					
6DW5	6	C	7	C	3
*6DX4	6	D	7	B	4
(Normal Shorts A, G)					
6DX8	6	D	6	H	3
	6	F	6	A	3
*6DY4	6	D	7	B	4
(Normal Shorts A, G)					
6DY5	6	B	1	B	3
6DY7	6	C	6	A	1
	6	C	6	E	1

TUBE	A	B	C	D	Skt
*6DZ4	6	D	7	B	4
(Normal Shorts A, G)					
6DZ7	6	C	6	A	1
	6	C	6	E	1
6DZ8	6	C	6	C	3
	6	F	6	A	3
6E8	6	D	6	K	1
6EA5	6	E	8	A	4
*6EA4	6	G	2	F	10
(Disregard Shorts except H-K)					
6EA7	6	D	6	A	2
	6	F	6	D	2
6EA8	6	D	6	B	3
	6	D	6	J	3
6EB5	6	F	6	B	4
	6	F	6	G	4
6EB8	6	C	6	G	3
	6	F	6	B	3
6EC7	6	D	3	A	3
†*6ED4	6	G	2	H	12
(Disregard Shorts except H-K)					
*6EF4	6	H	6	F	10
(Disregard Shorts except H-K)					
6EF6	6	C	6	E	1
6EH5	6	C	5	B	4
6EH7	6	D	3	B	3
6EH8	6	D	1	B	3
	6	D	1	G	3
6EJ4	6	H	6	F	10
6EJ7	6	D	3	B	3
*6EL4	6	J	3	E	1
(Disregard Shorts except H-K)					
6EL7	6	D	1	B	3
6EM5	6	C	7	C	8

TUBE	A	B	C	D	Skt
6EM7	6	D	6	A	2
	6	F	6	D	2
6EQ7	6	E	6	B	3
	6	G	6	H	3
6ER5	6	E	8	B	4
6ES5	6	E	8	B	4
6ES6	6	D	6	A	4
6ES8	6	D	6	B	3
	6	D	6	G	3
6ET6	6	D	6	A	4
6ET7	6	D	6	G	3
	6	G	6	C	3
	6	G	6	B	3
6EU7	6	G	6	E	13
	6	G	6	H	13
(See back of book for Mighty Mites not having socket #13)					
6EU8	6	D	6	B	3
	6	D	6	G	3
(See Magnoval Note on Page 8)					
6EV5	6	E	8	A	4
6EV7	6	E	6	B	3
	6	E	6	G	3
6EV8	6	D	6	A	3
	6	D	6	J	3
6EW6	6	D	6	A	4
6EW7	6	C	3	G	3
	6	F	3	B	3
6EX6	6	A	6	E	1
6EY6	6	C	6	E	1
6EZ5	6	C	6	E	1
6EZ8	6	E	6	B	3
	6	E	6	G	3
	6	E	6	J	3
6F5	6	F	6	K	1

TUBE	A	B	C	D	Skt
6F6	6	B	6	E	1
6F8	6	E	6	K	1
	6	E	6	E	1
6F10	6	D	6	D	1
6F12	6	D	6	A	4
6F19	6	D	3	B	3
6F21	6	E	6	A	4
6F22	6	F	2	J	3
6F26	6	D	3	B	3
6F29	6	D	3	B	3
6F30	6	D	3	B	3
6F31	6	D	6	A	4
6F32	6	E	2	A	4
6F35	6	G	2	A	4
6F36	6	D	6	A	4
6FA7	6	F	6	G	3
	6	G	6	C	3
6FB8	6	H	6	A	3
	6	H	6	B	3
	6	H	6	C	3
	6	H	6	F	3
	6	H	6	G	3
	6	H	6	H	3
6FC7	6	D	8	B	3
	6	D	8	F	3
6FD6	6	F	6	A	4
6FD7	6	C	2	C	3
	6	F	2	G	3
6FD12	6	D	6	B	3
	6	G	6	G	3
	6	G	6	H	3
6FE5	6	C	6	E	1
6FG5	6	D	2	A	4

TUBE	A	B	C	D	Skt
6FG7	6	D	3	J	3
	6	E	3	A	3
6FH5	6	E	8	B	4
6FH6	6	A	6	E	1
*6FH8	6	E	6	B	3
	6	E	6	F	3
(Normal Short H-K)					
6FJ7	6	E	7	K	10
	6	A	7	C	10
6FM7	6	C	9	C	10
	6	E	9	K	10
6FM8	6	F	6	B	3
	6	F	6	H	3
*6FN5	6	A	4	E	1
(Normal Short A, C, F, H)					
6FQ5	6	D	1	B	4
6FQ7	6	D	6	B	3
	6	D	6	G	3
6FR7	6	C	3	B	3
	6	F	3	G	3
6FS5	6	D	2	A	4
6FV6	6	E	6	A	4
6FV8	6	D	6	A	3
	6	D	6	J	3
6FW5	6	A	6	A	1
6FW8	6	E	6	B	3
	6	E	6	G	3
6FY5	6	E	1	B	4
6FY7	6	C	9	C	10
	6	F	9	K	10
6FX4	6	A	6	A	4
	6	A	6	F	4
6FY8	6	E	6	C	3
	6	F	6	A	3

TUBE	A	B	C	D	Skt
6G6	6	D	6	E	1
6G11	6	C	5	H	10
	6	D	5	C	10
6GA7	6	A	2	A	10
	6	A	2	D	10
6GA8	6	D	6	B	3
	6	D	6	G	3
6G-B3A	6	A	3	E	1
†*6GB5	6	A	2	A	12
(Normal Shorts C, F, G, H)					
6G-B6	6	A	6	E	1
6G-B7	6	A	3	E	1
*6GC5	6	C	7	C	3
(Normal Shorts A, H)					
6GC6	6	A	4	E	1
6GD7	6	D	3	A	4
	6	D	3	J	4
*6GE5	6	A	1	C	10
(Normal Short D and K)					
6GE8	6	D	6	C	3
	6	F	6	H	3
*6GF5	6	A	1	C	10
(Normal Short D and K)					
6GF7	6	C	6	B	5
	6	G	6	J	5
6GH8	6	D	6	B	3
	6	D	6	J	3
*6GJ5	6	A	7	B	5
(Normal Short A, G)					
6GJ7	6	D	3	B	3
	6	E	3	J	3
6GJ8	6	E	6	B	3
	6	E	6	J	3
6GK5	6	E	8	B	4
6GK6	6	C	3	B	3

TUBE	A	B	C	D	Skt
6GK7	6	F	3	B	3
6G-K17	6	A	2	E	2
6GL7	6	C	6	D	2
	6	E	6	A	2
(†See Magnoval Note on Page B)					
6GM5	6	C	3	F	8
6GM6	6	D	6	A	4
6GM8	6	E	6	B	3
	6	E	6	G	3
6GN6	6	E	6	A	4
	6	E	6	G	4
6GN8	6	C	6	G	3
	6	G	6	B	3
6GQ7	6	E	3	B	3
	6	E	3	F	3
	6	E	3	H	3
6GS7	6	E	3	A	3
	6	E	3	J	3
6GS8	6	D	6	G	3
*6GT5	6	A	7	B	5
(Normal Short A, G)					
6GU5	6	D	2	A	4
6GU7	6	D	6	B	3
	6	D	6	G	3
*6GV5	6	A	5	J	10
(Normal Shorts A, C, D, G, K)					
6GV7	6	E	7	G	3
	6	D	7	J	3
6GV8	6	C	6	J	3
	6	E	6	B	3
6GW5	6	D	7	B	4
6GW6	6	A	6	E	1
6GW8	6	C	6	H	3
	6	G	6	A	3
6GX6	6	E	6	A	4

TUBE	A	B	C	D	Skt
6GX7	6	D	3	B	3
	6	D	3	J	3
*6GY5	6	A	5	J	10
(Normal Shorts A, C, D, G, K)					
6GY6	6	E	6	A	4
*6GY8	6	E	6	A	3
	6	E	6	C	3
	6	G	6	F	3
(Normal Short H-K)					
6GZ5	6	C	5	B	4
6H4	6	F	6	D	1
6H6	6	E	6	C	1
	6	E	6	E	1
6H8	6	D	6	K	1
	6	G	6	E	1
	6	G	6	D	1
6HA5	6	E	2	A	4
*6HA6	6	C	3	B	3
(Normal Short F, G)					
*6HB5	6	A	3	A	10
(Normal Shorts D, K)					
*6HB6	6	C	3	B	3
(Normal Shorts E, H)					
6HB7	6	D	3	B	3
	6	D	3	J	3
6HC8	6	C	6	C	3
	6	F	6	A	3
*6HD5	6	A	1	C	10
(Normal Shorts D, E, J, K)					
6HD7	6	F	3	B	3
	6	F	3	J	3
*6HE5	6	C	2	J	10
(Normal Shorts A, C, D, K)					
6HE7	6	A	11	B	10
	6	A	11	J	10

TUBE	A	B	C	D	Skt
*6HF5	6	A	5	J	10
(Normal Shorts A, C, D, F, H, K)					
6HF8	6	D	6	G	3
	6	F	6	B	3
6HG5	6	C	8	A	4
6HG8	6	D	3	B	3
	6	D	3	F	3
*6HJ5	6	A	1	C	10
(Normal Shorts D, E, J, K)					
6HJ7	6	F	3	B	3
	6	F	3	J	3
6HJ8	6	D	6	B	3
	6	G	6	H	3
6HK5	6	E	2	A	4
6HK8	6	E	6	B	3
	6	E	6	G	3
*6HL5	6	A	1	B	3
(Disregard Shorts on F, H, and one other Pin)					
6HL8	6	D	6	B	3
	6	D	6	J	3
6HM5	6	D	2	A	4
6HM6	6	D	1	B	3
6HQ5	6	E	2	A	4
6HQ6	6	D	6	A	4
6HR5	6	A	8	A	4
6HR6	6	D	6	A	4
*6HS5	6	A	1	B	10
(Normal Shorts C, E, F, H, J, K)					
6HS6	6	E	6	A	4
*6HT5	6	J	3	F	10
(Disregard Shorts except H-K)					
6HT6	6	D	1	B	3
6HS8	6	D	6	G	3
6HU8	6	C	6	B	3
	6	C	6	F	3

TUBE	A	B	C	D	Skt
*6HV5	6	A	1	B	10
(Normal Shorts C, E, F, H, J, K)					
6HW8	6	E	6	F	3
6HZ6	6	F	6	A	4
6HZ8	6	D	6	G	3
	6	E	6	B	3
*6J4	6	H	1	G	4
(Emission and Short Test only; Normal Short A, F)					
6J5	6	E	6	E	1
6J6	6	E	6	E	4
	6	E	6	F	4
6J7	6	F	6	K	1
6J8	6	F	6	E	1
	6	F	6	K	1
6J9	6	F	6	G	3
	6	F	6	J	3
	6	F	6	B	3
6J10	6	C	6	A	10
	6	H	6	F	10
6J11	6	D	6	E	10
	6	D	6	A	10
6JA8	6	D	6	G	3
	6	F	6	B	3
*6JB6	6	A	7	B	5
(Normal Shorts A, G)					
6JB8	6	D	6	B	3
	6	F	6	G	3
6JC6	6	D	1	B	3
6JC8	6	E	1	H	3
	6	D	1	B	3
6JD6	6	D	1	B	3
*6JE6	6	A	7	B	5
(Normal Shorts A, G)					

TUBE	A	B	C	D	Skt
6JE8	6	F	6	B	3
	6	D	6	G	3
*6JF6	6	A	7	B	5
(Normal Shorts A, G)					
*6JG6	6	A	7	B	5
(Normal Shorts A, G)					
6JH6	6	D	6	A	4
6JH8	6	D	6	F	3
6JK6	6	D	6	A	4
6JK8	6	E	6	B	3
	6	E	6	G	3
6JL6	6	D	6	A	4
6JL8	6	C	6	G	3
	6	E	6	B	3
*6JM6	6	A	9	E	10
(Normal Shorts D, J, K)					
6JN6	6	A	4	A	10
6JN8	6	D	6	A	3
	6	D	6	J	3
6JQ6	6	A	8	H	3
	6	G	8	F	3
6JR6	6	A	1	B	5
*6JS6	6	A	10	E	10
(Normal Shorts A, C, D, K)					
*6JT6	6	A	7	B	5
(Normal Shorts A, G)					
6JT8	6	D	6	G	3
	6	F	6	B	3
*6JU6	6	A	7	B	5
(Normal Shorts A, G)					
*6JU8	6	E	6	A	3
	6	E	6	G	3
	6	E	1	B	3
	6	E	8	H	3
(Normal Shorts B, H)					

TUBE	A	B	C	D	Skt
6JV8	6	D	6	G	3
	6	G	6	B	3
6JW6	6	C	7	B	3
6JW8	6	D	6	J	3
	6	C	6	B	3
6JX8	6	E	6	B	3
	6	E	6	J	3
6JY8	6	C	6	G	3
	6	D	6	B	3
*6JZ6	6	A	8	E	10
(Normal Shorts D, K)					
6JZ8	6	C	7	G	10
	6	E	7	K	10
6K5	6	F	6	K	1
6K6	6	B	6	E	1
6K7	6	E	6	K	1
6K8	6	E	6	E	1
6K11	6	F	6	A	10
	6	F	6	G	10
	6	D	6	J	10
6KA8	6	E	6	F	3
	6	F	6	B	3
*6KD6	6	A	10	E	10
(Normal Shorts A, C, D, K)					
6KD8	6	D	6	B	3
	6	D	6	J	3
*6KE6	6	A	10	E	10
(Normal Shorts A, D, J, K)					
6KE8	6	D	6	J	3
	6	E	6	B	3
6KF8	6	D	6	G	3
†*6KG6	6	A	1	H	12
(Normal Shorts B, C, F, G)					
6KH8	6	C	6	B	3
	6	C	6	F	3

TUBE	A	B	C	D	Skt
6KL8	6	D	6	B	3
	6	F	6	H	3
(†See Magnoval Note on Page B)					
*6KM6	6	A	7	B	5
(Normal Shorts A, G)					
6KM8	6	F	6	G	3
	6	H	6	C	3
*6KN6	3	A	10	E	10
(Normal Shorts A, C, D, G, K, H-K)					
6KN8	6	D	6	B	3
	6	D	6	G	3
6KR8	6	D	6	B	3
	6	C	6	G	3
6KS6	6	H	6	E	4
(Emission and Shorts Test)					
	6	H	6	B	4
(Grid Leakage Test)					
6KS8	6	F	6	B	3
	6	C	6	G	3
6KT6	6	D	3	B	3
6KT8	6	D	6	G	3
	6	G	6	B	3
6KU8	6	D	6	G	3
	6	G	6	C	3
	6	G	6	B	3
*6KV6	6	A	1	B	5
(Normal Shorts C, F, G, H)					
6KV8	6	C	6	G	3
	6	F	6	B	3
†6KW6	6	B	9	A	12
6KX6	6	G	6	A	3
	6	G	6	K	3
6KY6	6	C	3	B	3
6KY8	6	C	6	B	5
	6	G	6	J	5

TUBE	A	B	C	D	Skt
6KZ8	6	D	6	B	3
	6	D	6	J	3
(†See Magnoval Note on Page B)					
6L5	6	F	6	E	1
6L6	6	C	6	E	1
6L7	6	F	6	K	1
6L10	6	C	6	D	1
6L12	6	D	6	B	3
	6	D	6	G	3
6L13	12	F	10	B	3
	12	F	10	G	3
6L31	6	C	8	A	4
*6L34	6	E	7	A	4
(Normal Shorts B, E)					
*6L40	6	C	1	B	3
(Permissible Short F and H one other Pin)					
*6L43	6	C	1	B	3
(Normal Shorts C, H)					
*6LB6	6	A	10	E	10
(Normal Shorts A, C, D, K)					
*6LB8	6	D	6	B	3
	6	D	6	G	3
(Normal Shorts C, H)					
6LC6	6	J	3	E	2
6LC8	6	E	6	F	3
	6	F	6	B	3
6LD6	6	C	7	B	5
6LD12	6	F	6	H	3
	6	G	6	F	3
	6	G	6	B	3
	6	G	6	A	3
6LD13	6	F	6	H	3
	6	G	6	F	3
	6	G	6	B	3

TUBE	A	B	C	D	Skt
6LE8	6	D	6	J	3
*6LF6	6	A	10	E	10
(Normal Shorts A, C, D, K)					
6LF8	6	D	6	G	3
	6	G	6	B	3
*6LG6	6	A	5	J	10
(Normal Shorts A, C, D, K)					
*6LH6	6	H	6	E	1
(Normal Shorts A, C, D, H)					
6LJ6	6	H	6	E	1
6LJ8	6	D	3	A	3
	6	D	3	J	3
6LM8	6	D	6	B	3
	6	D	6	J	3
6LN8	6	D	6	B	3
	6	D	6	J	3
*6LQ6	6	A	2	F	5
(Normal Shorts A, G)					
6LQ8	6	D	6	B	3
	6	D	6	G	3
*6LR6	6	A	10	E	10
(Normal Shorts A, C, D, K)					
6LR8	6	C	6	B	5
	6	D	6	J	5
*6LT8	6	E	6	J	3
	6	C	6	F	3
	6	C	6	H	3
(Normal Shorts A Only)					
*6LU8	6	B	8	F	10
(Normal Shorts F and G)					
	6	E	8	K	10
*6LV6	6	A	10	E	10
(Normal Shorts A, C, D, K)					

TUBE	A	B	C	D	Skt
*6LX8	6	D	6	J	3
	6	C	6	B	3
6LY8	6	F	6	B	3
	6	C	6	G	3
*6M5	6	C	7	B	3
(Permissible Short H and one other Pin)					
6M6	6	F	6	E	1
6M7	6	D	6	K	1
6M8	6	D	6	K	1
	6	F	6	E	1
	6	G	6	H	1
6M11	6	D	6	B	10
	6	E	6	E	10
	6	E	6	H	10
6MB8	6	D	6	A	3
	6	E	6	J	3
6MD8	6	D	6	F	5
	6	D	6	J	5
	6	D	6	H	5
6ME8	6	D	6	F	3
6MF8	6	A	8	F	10
	6	E	8	K	10
6MG8	6	D	6	J	3
	6	E	6	B	3
*6M-H1	6	G	1	G	4
(Emission and Short Test Only Normal Shorts E, F)					
6M-HH3	6	E	6	E	4
	6	E	6	F	4
6MJ8	6	D	6	A	10
	6	D	6	H	10
	6	D	6	K	10
6MK8	6	E	6	G	3

TUBE	A	B	C	D	Skt
6ML8	6	D	6	F	3
	6	D	6	H	3
	6	D	6	J	3
6MN8	6	D	6	A	10
	6	D	6	H	10
	6	D	6	K	10
6M-P20	6	C	6	A	4
6MQ8	6	E	6	B	3
	6	D	6	J	3
6MU8	6	C	6	B	3
	6	E	6	J	3
*6N3	6	A	2	J	3
(Disregard Shorts)					
*6N4	6	D	8	A	4
(Normal Short B, F)					
6N7	6	E	6	D	1
	6	E	6	E	1
6N8	6	F	6	B	3
	6	G	6	G	3
	6	G	6	H	3
6N-H10	6	G	6	D	6
6NK7	6	F	6	K	1
6N-L7	6	F	6	D	6
6P5	6	F	6	E	1
*6P7	6	F	6	K	1
(Normal Short C)					
6P8	6	E	6	K	1
	6	F	6	E	1
6P9	6	C	8	A	4
*6P15	6	C	1	B	3
(Permissible Shorts F, H and one other Pin)					
6P17	6	C	6	A	4

TUBE	A	B	C	D	Skt
6PL12	8	C	6	C	3
	8	F	6	A	3
*6P-P22	6	D	2	J	3
(Normal Shorts C, H)					
6Q4	6	G	8	A	8
6Q5	6	F	6	E	1
6Q6	6	F	6	K	1
	6	G	6	E	1
6Q7	6	F	6	K	1
	6	G	6	E	1
	6	G	6	D	1
6Q11	6	D	6	J	10
	6	F	6	G	10
	6	F	6	A	10
*6Q16	6	B	1	J	3
(Normal Shorts B, C, G, H)					
*6R3	6	A	2	J	3
(Disregard Shorts except H-K)					
6R4	6	C	6	A	3
6R6	6	E	6	K	1
6R7	6	E	6	K	1
	6	G	6	E	1
	6	G	6	D	1
6R8	6	E	6	H	3
	6	G	6	F	3
	6	G	6	B	3
	6	G	6	A	3
6R-HH2	6	E	6	B	3
	6	E	6	G	3
6R-HH8	6	D	6	B	3
	6	D	6	G	3
*6R-K19	6	A	2	J	3
(Disregard Shorts except H-K)					
6R-P10	(See Last Page)				
6R-P15	6	A	2	A	3

TUBE	A	B	C	D	Skt
*6R-P22	6	A	10	B	3
(Normal Shorts C, H)					
6R-R8	(See Last Page)				
*6S2	6	H	1	K	8
(Disregard Shorts)					
*6S4	6	C	3	F	3
(Disregard Shorts except H-K)					
6S6	6	D	6	K	1
6S7	6	E	6	K	1
6S8	6	F	6	K	2
	6	G	6	D	2
	6	G	6	C	2
	6	G	6	A	2
6SA7	6	D	6	E	1
6SB7	6	D	6	E	1
6SC7	6	F	6	C	2
	6	F	6	D	2
6SD7	6	D	6	D	1
6SE7	6	F	6	D	1
6SF5	6	F	6	C	2
6SF7	6	D	6	B	2
	6	G	6	E	2
6SG7	6	D	5	D	1
6SH7	6	D	5	D	1
6SH8	6	E	6	G	3
6SJ7	6	E	6	D	1
6SK7	6	D	6	D	1
6SL7	6	F	6	A	2
	6	F	6	D	2
6SN7	6	E	6	A	2
	6	E	6	D	2
6SQ7	6	F	6	B	2
	6	G	6	D	2
	6	G	6	E	2

TUBE	A	B	C	D	Skt
6SR7	6	E	6	B	2
	6	G	6	D	2
	6	G	6	E	2
6SS7	6	E	6	D	1
6ST7	6	F	6	B	2
	6	G	6	D	2
	6	G	6	E	2
6SU7	6	F	6	A	2
	6	F	6	D	2
6SV7	6	F	6	B	2
	6	G	6	E	2
6SZ7	6	F	6	B	2
	6	G	6	D	2
	6	G	6	E	2
*6T4	6	D	7	B	4
(Normal Short A, G)					
6T6	6	E	6	K	1
6T7	6	F	6	K	1
	6	G	6	E	1
	6	G	6	D	1
6T8	6	F	6	H	3
	6	G	6	F	3
	6	G	6	B	3
	6	G	6	A	3
6T9	6	C	6	H	10
	6	D	6	D	10
6T10	6	D	6	C	10
	6	C	6	H	10
6TE8	6	F	6	E	1
	6	F	6	K	1
6TE9	6	F	6	G	3
	6	F	6	H	3
6TH8	6	F	6	E	1
	6	F	6	K	1

TUBE	A	B	C	D	Skt
*6U3	6	A	1	J	3
(Disregard Shorts except H-K)					
6U4	6	A	6	E	2
6U6	6	C	6	E	1
6U7	6	E	6	K	1
6U8	6	D	6	B	3
	6	D	6	J	3
6U9	6	D	6	C	11
	6	D	6	K	11
6U10	6	E	6	A	10
	6	E	6	G	10
	6	E	6	J	10
6V3	6	A	3	G	8
6V4	6	A	7	A	8
	6	A	7	G	8
6V5	6	C	6	E	2
6V6	6	C	6	E	1
6V7	6	F	6	K	1
	6	G	6	E	1
	6	G	6	D	1
6V8	6	F	6	F	3
	6	G	6	J	3
	6	G	6	G	3
	6	G	6	B	3
6V9	6	D	6	H	11
	6	E	6	C	11
6W4	6	A	2	E	2
6W5	6	B	6	C	1
	6	B	6	E	1
6W6	6	C	6	E	1
6W7	6	F	6	K	1
6W9	6	C	6	H	11
	6	D	6	A	11

TUBE	A	B	C	D	Skt
*6X2	6	J	6	K	5
(Insert two tube leads into 3 and 4 of sockets #3. Touch cap lead to top lead on tube.)					
6X4	6	B	6	A	4
	6	B	6	F	4
6X5	6	B	6	E	1
	6	B	6	C	1
6X6	6	F	6	C	1
	6	G	6	E	1
6X8	6	E	6	B	3
	6	E	6	G	3
6X9	6	D	6	C	11
	6	E	6	K	11
6Y3	6	F	6	K	1
6Y6	6	C	6	E	1
6Y7	6	F	6	D	1
	6	F	6	E	1
6Y9	6	C	6	H	11
	6	D	6	A	11
6Y10	6	C	6	C	10
	6	F	6	H	10
6ZY5	6	A	6	C	1
	6	A	6	E	1
6Z7	6	F	6	D	1
	6	F	6	E	1
6Z10	6	C	6	A	10
	6	H	6	F	10
7A4	6	E	5	F	9
7A5	6	C	6	F	9
7A6	6	E	6	C	9
	6	E	6	F	9
7A7	6	E	6	F	9
7A8	6	E	6	D	9

TUBE	A	B	C	D	Skt
*7AB7	6	F	6	E	1
(Normal Shorts D, F, H)					
7AD7	6	C	6	F	9
7AF7	6	E	6	D	9
	6	E	6	E	9
7AG7	6	E	6	F	9
7AH7	6	E	6	F	9
7AJ7	6	E	6	F	9
7AK7	6	C	6	F	9
7AN7	7	E	8	B	3
	7	E	8	F	3
7AU7	7	D	10	B	3
	7	D	10	G	3
7B4	6	F	6	F	9
7B5	6	C	6	F	9
7B6	6	F	4	C	9
	6	G	4	E	9
	6	G	4	F	9
7B7	6	E	6	F	9
7B8	6	F	6	D	9
7C4	6	F	6	D	9
7C5	6	C	6	F	9
7C6	6	F	4	C	9
	6	G	4	E	9
	6	G	4	F	9
7C7	6	E	6	F	9
7D7	6	D	6	F	9
	6	F	6	D	9
7D11	6	A	6	E	1
7DJ8	7	D	6	B	3
	7	D	6	G	3
*7E5	6	F	5	A	9
(Disregard Shorts)					

TUBE	A	B	C	D	Skt
7E6	6	F	4	C	9
	6	G	4	E	9
	6	G	4	F	9
7E7	6	E	6	F	9
	6	G	6	D	9
	6	G	6	C	9
7ED7	7	E	3	B	3
7EK7	7	E	8	B	3
	7	E	8	F	3
7ES8	7	D	6	B	3
	7	D	6	G	3
7EY6	7	C	6	E	1
7F7	6	F	6	D	9
	6	F	6	E	9
7F8	(See Last Page)				
7FC7	7	D	8	B	3
	7	D	8	F	3
7G7	6	F	6	F	9
7G8	6	F	6	D	9
	6	F	6	E	9
7GS7	7	E	3	A	3
	7	E	3	J	3
7GV7	7	E	7	J	3
	7	D	7	G	3
7H7	6	D	6	F	9
7HG8	7	D	3	B	3
	7	D	3	F	3
7J7	6	F	6	D	9
	6	E	6	F	9
7K7	6	F	6	D	9
	6	G	6	E	9
	6	G	6	F	9
7KY6	7	C	3	B	3
7KZ6	7	C	3	B	3

TUBE	A	B	C	D	Skt
7L7	6	F	6	F	9
7M-P18	7	A	8	A	4
7N7	6	E	6	D	9
	6	E	6	E	9
7Q7	6	E	6	D	9
7R7	6	F	6	F	9
	6	G	6	D	9
	6	G	6	C	9
7S7	6	D	6	F	9
	6	E	6	D	9
7T7	6	E	6	F	9
7V7	6	E	6	F	9
7W7	6	D	4	F	9
7X6	6	B	6	C	9
	6	B	6	F	9
7X7	6	F	6	C	9
	6	G	6	E	9
	6	G	6	F	9
7Y4	6	B	4	C	9
	6	B	4	F	9
7Z4	6	B	4	C	9
	6	B	4	F	9
8A8	8	D	7	B	3
	8	E	7	J	3
8AC9	8	D	6	B	10
	8	D	2	C	10
	8	D	6	J	10
8AC10	8	E	6	A	10
	8	E	6	G	10
	8	E	6	J	10
8AG10	8	D	6	A	10
8AL9	8	E	9	E	10
	8	C	9	A	10

TUBE	A	B	C	D	Skt
8AR11	8	D	6	E	10
	8	D	6	K	10
8AU8	8	D	6	G	3
	8	E	6	B	3
8AV11	8	D	6	A	10
	8	D	6	G	10
	8	D	6	J	10
8AW8	8	D	6	G	3
	8	F	6	B	3
8B8	8	C	6	C	3
	8	F	6	A	3
8B10	8	E	6	C	10
	8	E	6	E	10
	8	F	6	H	10
	8	F	6	K	10
8BA8	8	D	6	G	3
	8	E	6	B	3
8BA11	8	D	6	D	10
	8	E	6	J	10
8BH8	8	D	6	G	3
	8	E	6	B	3
8BM11	8	C	6	F	10
	8	D	6	A	10
8BN8	8	D	6	A	3
	8	D	6	F	3
	8	E	6	H	3
8BN11	8	E	6	C	10
	8	E	6	G	10
*8BQ5	8	C	1	B	3
(Permissible Short F, H and one other Pin)					
8BQ7	8	E	6	B	3
	8	E	6	G	3

TUBE	A	B	C	D	Skt
8BQ11	8	E	6	E	10
	8	E	6	K	10
8BU11	8	D	6	D	10
	8	D	6	F	10
	8	D	6	H	10
8BV7	8	E	8	H	3
	8	G	8	F	3
	8	G	8	A	3
8CB11	8	D	6	C	10
	8	C	6	A	10
8CG7	8	E	6	B	3
	8	E	6	G	3
8CM7	8	D	2	G	3
	8	D	2	H	3
8CN7	8	F	10	A	3
	8	F	10	B	3
	8	F	10	G	3
8CS7	8	C	2	C	3
	8	F	2	G	3
*8CW5	8	C	1	B	3
(Permissible Short F, H and one other Pin)					
8CX8	8	C	6	G	3
	8	E	6	B	3
8CY7	8	C	2	C	3
	8	E	2	G	3
8D8	8	G	2	J	3
8DX8	8	D	6	H	3
	8	F	6	A	3
8EB8	8	C	6	G	3
	8	F	6	B	3
8EL8	8	D	6	J	3
8EM5	8	C	7	C	8

TUBE	A	B	C	D	Skt
8ET7	8	D	6	G	3
	8	G	6	C	3
	8	G	6	B	3
8FQ7	8	D	6	B	3
	8	E	6	G	3
8GJ7	8	D	3	B	3
	8	E	3	J	3
8GK6	8	C	3	B	3
8GM6	8	D	6	A	4
8GN8	8	C	6	G	3
	8	G	6	B	3
8GU7	8	D	6	B	3
	8	D	6	G	3
8GX7	8	D	3	B	3
	8	D	3	J	3
*8HA6	8	C	3	B	3
(Normal Shorts F, G)					
8HG8	8	D	3	B	3
	8	D	3	F	3
8JE8	8	D	6	G	3
	8	F	6	B	3
8JK8	8	E	6	B	3
	8	E	6	G	3
8JL8	8	C	6	G	3
	8	E	6	B	3
8JT8	8	D	6	G	3
	8	F	6	B	3
*8JU8	8	E	6	A	3
	8	E	6	G	3
	8	E	1	B	3
	8	E	8	H	3
(Normal Shorts B, H)					
8JV8	8	D	6	G	3
	8	G	6	B	3

TUBE	A	B	C	D	Skt
8KA8	8	E	6	F	3
	8	F	6	B	3
8KR8	8	D	6	B	3
	8	B	6	G	3
8KS8	8	F	6	B	3
	8	C	6	G	3
8LC8	8	E	6	F	3
	8	F	6	B	3
8LE8	8	D	6	J	3
8LN8	8	D	6	B	3
	8	D	6	J	3
8LS6	8	D	3	B	3
*8LT8	8	C	6	F	3
	8	C	6	H	3
	8	E	6	J	3
(Normal Shorts A Only)					
8MU8	8	C	6	B	3
	8	E	6	J	3
8R-LP1	8	C	6	C	3
	8	F	6	A	3
8SN7	8	E	6	A	2
	8	E	6	D	2
*8TL8	8	E	6	J	3
	8	C	6	F	3
	8	C	6	H	3
(Normal Shorts A Only)					
8U9	8	D	6	C	11
	8	D	6	K	11
8X9	8	D	6	C	11
	8	E	6	E	11
9A8	9	D	6	B	3
	9	D	6	J	3
9AB4	9	E	2	F	4

TUBE	A	B	C	D	Skt
9AH9	9	E	5	B	10
	9	C	5	F	10
9AK8	9	F	6	H	3
	9	G	6	F	3
	9	G	6	B	3
	9	G	6	A	3
9AK10	9	E	6	A	10
	9	E	6	G	10
	9	E	6	J	10
9AQ8	9	D	6	B	3
	9	D	6	G	3
9AU7	9	D	10	B	3
	9	D	10	G	3
9BJ11	9	E	6	A	10
	9	E	6	F	10
9BM5	9	C	8	A	4
*9BR7	9	E	10	G	3
	9	E	10	F	3
	9	E	10	B	3
(Normal Shorts F, G)					
9BR8	9	D	6	J	3
	9	E	6	A	3
*9BW6	9	C	1	B	3
(Permissible Short F and one other Pin)					
9CG8	9	E	3	A	3
	9	E	3	J	3
9CL8	9	D	6	A	3
	9	D	6	J	3
9D6	9	F	6	A	4
9D7	9	E	1	B	3
9DZ8	9	C	6	C	3
	9	F	6	A	3
9EA8	9	D	6	J	3
	9	D	6	B	3

TUBE	A	B	C	D	Skt
†*9ED4	9	G	2	H	12
(Disregard Shorts except H-K)					
9EF6	9	C	6	E	1
9GH8	9	D	6	B	3
	9	D	6	J	3
9GV8	9	C	6	J	3
	9	E	6	B	3
9JC8	9	E	1	H	3
	9	D	1	B	3
(†See Magnoval Note on Page 8)					
9JW8	9	D	6	J	3
	9	C	6	B	3
9KC6	9	D	6	B	3
9KX6	9	C	3	B	3
9KZ8	9	D	6	B	3
	9	D	6	J	3
9LA6	9	C	3	B	3
9M-P12	9	C	6	A	4
9MN8	9	D	6	A	10
	9	D	6	H	10
	9	D	6	K	10
9P9	9	C	8	A	4
9R-A6	9	C	2	G	3
9R-AL1	9	C	3	B	3
	9	F	3	G	3
9R-HR2	9	D	6	B	3
	9	D	6	J	3
9U8	9	D	6	B	3
	9	D	6	J	3
9V9	9	D	6	H	11
	9	E	6	C	11
9X8	9	E	6	B	3
	9	E	6	G	3
10AL11	10	C	6	H	10
	10	D	6	C	10

TUBE	A	B	C	D	Skt
*10BQ5	10	C	1	B	3
(Permissible Short F, H and one other Pin)					
10C8	10	D	6	H	3
	10	E	6	B	3
10C14	19	E	6	B	3
	19	F	6	J	3
*10CW5	10	C	1	B	3
(Disregard Shorts on F, H, and one other Pin)					
10DA7	10	C	2	C	3
	10	E	2	G	3
10DE7	10	C	3	B	3
	10	E	3	G	3
10DR7	10	C	3	B	3
	10	E	3	G	3
10DX8	10	D	6	H	3
	10	F	6	A	3
10EB8	10	C	6	G	3
	10	F	6	B	3
10EG7	10	D	6	A	2
	10	E	6	D	2
10EM7	10	D	6	A	2
	10	F	6	D	2
10EW7	10	C	3	G	3
	10	F	3	B	3
10FD7	10	C	3	G	3
	10	D	3	B	3
10FD12	19	E	6	B	3
	19	G	6	G	3
	19	G	6	H	3
10FH6	10	A	6	E	1
10FR7	10	C	3	B	3
	10	F	3	G	3

TUBE	A	B	C	D	Skt
10GF7	10	C	6	B	5
	10	G	6	J	5
10GK6	10	C	3	B	3
10GN8	10	C	6	G	3
	10	G	6	B	3
10HA6	10	C	3	B	3
(Normal Shorts F, G)					
10HF8	10	D	6	G	3
	10	F	6	B	3
10J10	10	C	6	A	10
	10	H	6	F	10
10JA8	10	D	6	G	3
	10	F	6	B	3
10JT8	10	D	6	G	3
	10	F	6	B	3
10JY8	10	C	6	G	3
	10	D	6	B	3
10KU8	10	D	6	G	3
	10	G	6	C	3
	10	G	6	B	3
10KR8	10	C	6	G	3
	10	D	6	B	3
10LB8	10	D	6	B	3
	10	D	6	G	3
10L14	26	E	6	B	3
	26	E	6	G	3
10LD12	28	F	6	H	3
	28	G	6	F	3
	28	G	6	B	3
	28	G	6	A	3
10LD13	14	F	10	B	3
	14	G	10	F	3
	14	G	10	H	3
10LE8	10	D	6	J	3

TUBE	A	B	C	D	Skt
10LW8	10	F	6	B	3
	10	C	6	G	3
10LY8	10	F	6	B	3
	10	C	6	G	3
10LZ8	10	E	6	B	3
	10	D	6	G	3
10PL12	50	C	6	C	3
	50	E	6	A	3
10Z10	10	C	6	A	10
	10	H	6	F	10
11AC11	11	E	6	C	10
	11	E	6	F	10
	11	C	6	H	10
11AR11	11	D	6	K	10
	11	D	6	E	10
11BM8	11	C	6	C	3
	11	F	6	A	3
11BQ11	11	E	6	E	10
	11	E	6	K	10
11BT11	11	E	6	C	10
	11	E	6	E	10
	11	D	6	A	10
11C5	11	C	5	B	4
11CF11	11	C	6	E	10
	11	E	6	A	10
	11	E	6	J	10
11CY7	11	C	2	C	3
	11	E	2	G	3
11D12	6	A	6	A	2
	6	A	6	D	2
11DS5	11	C	8	A	4
11E13	12	C	10	A	3
	12	C	10	C	3

TUBE	A	B	C	D	Skt
*11LT8	11	E	6	J	3
	11	C	6	F	3
	11	C	6	H	3
(Normal Shorts A Only)					
11FY7	11	C	9	C	10
	11	F	9	K	10
*11HM7	11	C	7	B	3
(Normal Shorts C, J)					
11JE8	11	F	6	B	3
	11	D	6	G	3
11KV8	11	C	6	G	3
	11	F	6	B	3
11MS8	11	B	6	B	3
	11	F	6	J	3
11LQ8	11	D	6	B	3
	11	D	6	G	3
11Y9	11	C	6	H	11
	11	D	6	A	11
1204	6	F	7	E	9
12A4	12	C	3	G	8
12A6	12	C	6	E	1
12A8	12	E	6	E	1
*12AB5	12	C	3	F	3
(Normal Short A, H)					
12AC6	12	F	6	A	4
12AD5	12	F	8	B	3
12AD6	12	F	6	A	4
12AD7	12	F	10	B	3
	12	F	10	G	3
12AE6	12	F	6	A	4
	12	G	6	E	4
	12	G	6	F	4
12AE7	12	F	10	B	3
	12	G	10	G	3

TUBE	A	B	C	D	Skt
12AE10	12	F	6	C	10
	12	C	6	H	10
*12AF3	12	A	2	J	3
(Disregard Shorts except H-K)					
12AF6	12	F	6	A	4
12AG6	12	F	6	A	4
12AG7	12	C	6	D	1
12AH6	12	D	6	A	4
12AH7	12	F	6	A	2
	12	F	6	E	2
12AH8	12	F	10	B	3
	12	F	10	G	3
12AJ6	12	F	6	A	4
	12	G	6	E	4
	12	G	6	F	4
12AJ7	12	F	6	B	3
	12	G	6	J	3
12AJ8	12	E	6	B	3
	12	E	6	J	3
12AK7	12	C	6	D	1
12AL5	12	E	6	B	4
	12	E	6	G	4
12AL8	12	E	6	C	3
	12	G	6	H	3
12AL11	12	C	6	H	10
	12	E	6	C	10
12AQ5	12	C	8	A	4
12AS5	12	C	5	B	4
12AT6	12	F	6	A	4
	12	G	6	E	4
	12	G	6	F	4
12AT7	12	E	10	B	3
	12	E	10	G	3
12AU6	12	D	6	A	4

TUBE	A	B	C	D	Skt
12AU7	12	D	10	B	3
	12	D	10	G	3
12AU8	12	D	6	G	3
	12	D	6	B	3
12AV5	12	A	6	A	1
12AV6	12	F	6	A	4
	12	G	6	E	4
	12	G	6	F	4
12AV7	12	D	10	B	3
	12	D	10	G	3
12AW6	12	E	6	A	4
12AX3	12	A	11	D	10
12AX4	12	A	2	E	2
12AX7	12	F	10	B	3
	12	F	10	G	3
*12AY3	12	A	8	B	5
(Disregard All Shorts except H-K)					
12AY7	12	F	10	B	3
	12	F	10	G	3
12AZ7	12	E	10	B	3
	12	E	10	G	3
†*12B-B14	12	A	1	B	12
(Normal Shorts C, F, G, H)					
12B3	12	A	6	G	8
12B4	12	C	3	G	8
12B6	12	F	6	K	1
	12	G	6	E	1
12B7	12	E	6	F	9
12B8	12	E	6	K	1
	12	F	6	H	1
12BA6	12	D	6	A	4
12BA7	12	D	6	B	3
12BD5	12	A	6	A	1
12BD6	12	D	6	A	4

TUBE	A	B	C	D	Skt
12BE3	12	A	4	K	10
12BE6	12	D	6	A	4
12BF6	12	F	6	A	4
	12	G	6	E	4
	12	G	6	F	4
12BF11	12	C	6	H	10
	12	D	6	C	10
12BH7	12	D	10	B	3
	12	D	10	G	3
12BJ3	12	A	4	K	10
12BK5	12	C	8	C	3
12BK6	12	F	6	A	4
	12	G	6	E	4
	12	G	6	F	4
(†See Magnoval Note on Page 8)					
12BL6	12	F	6	A	4
12BM5	12	C	8	A	4
*12BN6	12	H	6	E	4
(Emission and Short Test)					
	12	H	6	B	4
(Grid Leakage Test)					
12BQ6	12	A	6	E	1
*12BR3	12	A	1	J	8
(Disregard All Shorts except H-K)					
*12BR7	12	E	10	G	3
	12	E	10	F	3
	12	E	10	B	3
(Normal Shorts F, G)					
*12BS3	12	A	8	B	5
(Disregard All Shorts except H-K)					
12BT3	12	A	4	K	10
12BT6	12	F	6	A	4
	12	G	6	E	4
	12	G	6	F	4

TUBE	A	B	C	D	Skt
12BU6	12	E	6	A	4
	12	G	6	E	4
	12	G	6	F	4
*12BV7	12	C	7	B	3
(Normal Shorts C, J)					
12BV11	12	F	6	F	10
	12	F	6	G	10
12BW4	12	B	6	A	3
	12	B	6	G	3
12BX6	12	D	1	B	3
*12BY3	12	A	2	J	3
(Disregard Shorts except H-K)					
12BY7	12	C	7	B	3
(Normal Shorts C, J)					
12BZ6	12	D	6	A	4
12BZ7	12	F	10	B	3
	12	F	10	G	3
12C5	12	C	5	B	4
12C8	12	E	6	K	1
	12	G	6	D	1
	12	G	6	E	1
12CA5	12	C	5	B	4
*12CK3	12	A	2	G	5
(Disregard Shorts except H-K)					
*12CL3	12	A	2	G	5
(Disregard Shorts except H-K)					
12CM6	12	C	7	C	3
12CN5	12	F	5	B	4
*12CR5	12	C	9	C	3
(Normal Short A, B, F, G)					
12CR6	12	E	6	G	4
	12	G	6	B	4
*12CS5	12	C	7	C	3
(Permissible Short H and one other Pin)					
12CS6	12	D	6	A	4

TUBE	A	B	C	D	Skt
12CT8	12	D	6	H	3
	12	E	6	B	3
12CU5	12	C	5	B	4
12CU6	12	A	6	E	1
12CX6	12	F	6	A	4
12CY6	12	F	6	A	4
12D4	12	A	6	E	2
12DA6	12	D	7	B	3
*12DB5	12	C	7	C	3
(Normal Short B, G; Permissible Short H and one other Pin)					
12DE8	12	F	6	C	3
	12	F	6	A	3
12DF5	12	B	10	A	3
	12	B	10	F	3
12DF7	12	F	10	B	3
	12	F	10	G	3
12DJ8	12	D	6	B	3
	12	D	6	G	3
*12DK5	12	F	10	B	3
(Permissible Short F and one other Pin)					
12DK6	12	D	6	A	4
12DK7	12	E	9	A	3
	12	G	9	F	3
	12	G	9	J	3
12DL8	12	C	6	C	3
	12	G	6	A	3
	12	G	6	J	3
12DM4	12	A	2	E	2
12DM5	12	C	5	B	4
12DM7	12	E	10	B	3
	12	E	10	G	3

TUBE	A	B	C	D	Skt
12DM8	12	D	6	F	5
	12	D	6	H	5
	12	D	6	J	5
12DQ4	12	A	2	E	2
12DQ6	12	A	6	E	1
*12DQ7	12	C	7	B	3
(Normal Short C, J)					
12DS7	12	D	6	C	3
	12	G	6	A	3
	12	G	6	J	3
*12DT5	12	C	7	C	3
(Permissible Short H and one other Pin)					
12DT6	12	E	6	A	4
12DT7	12	G	10	B	3
	12	G	10	G	3
12DT8	12	E	6	B	3
	12	E	6	G	3
12DU7	12	D	9	A	3
	12	G	9	G	3
	12	G	9	J	3
12DV7	12	G	10	B	3
	12	G	10	C	3
	12	G	10	G	3
12DV8	12	D	6	C	3
	12	G	6	A	3
	12	G	6	J	3
*12DW4	12	A	8	B	5
(Disregard Shorts except H-K)					
12DW5	12	C	7	C	3
12DW7	12	D	10	B	3
	12	F	10	G	3
12DW8	12	E	6	B	3
	12	F	6	G	3
	12	F	6	J	3

TUBE	A	B	C	D	Skt
12DY8	12	D	6	A	3
	12	F	6	J	3
12DZ6	12	F	6	A	4
12DZ8	12	C	6	C	3
	12	F	6	A	3
12E5	12	F	6	E	1
12E13	6	C	6	E	1
12EA6	12	F	6	A	4
12EC8	12	F	6	A	3
	12	F	6	J	3
12ED5	12	C	5	B	4
12EF6	12	C	6	E	1
12EG6	12	F	6	A	4
12EH5	12	C	5	B	4
12EK6	12	E	6	A	4
12EL6	12	F	6	A	4
	12	G	6	E	4
	12	G	6	F	4
*12EM6	12	E	8	A	3
	12	G	8	J	3
(Permissible Short H and one other Pin)					
12EN6	12	C	6	E	1
12EQ7	12	E	6	B	3
	12	G	6	H	3
12EZ6	12	F	6	A	4
12F5	12	F	6	K	1
12F8	12	F	6	H	3
	12	G	6	F	3
	12	G	6	A	3
12FA6	12	F	6	A	4
*12FB5	12	C	1	B	3

TUBE	A	B	C	D	Skt
12FK6	12	F	6	A	4
	12	G	6	E	4
	12	G	6	F	4
12FM6	12	F	6	A	4
	12	G	6	E	4
	12	G	6	F	4
12FQ7	12	D	6	B	3
	12	D	6	G	3
12FQ8	12	G	6	B	3
	12	G	6	G	3
*12FR8	12	F	6	C	3
	12	G	6	A	3
	12	G	6	J	3
(Normal Shorts H, K)					
12FS5	12	D	2	A	4
12FT6	12	E	6	A	4
	12	G	6	E	4
	12	G	6	F	4
12FV7	12	D	10	B	3
	12	D	10	G	3
12FX5	12	C	5	B	4
*12FX8	12	F	6	B	3
	12	F	6	F	3
(Normal Shorts H, K)					
12FY8	12	E	6	C	3
	12	F	6	A	3
*12G4	12	E	5	F	4
(Permissible Short B and one other Pin)					
12G7	12	F	6	K	1
	12	G	6	E	1
	12	G	6	D	1
12G8	12	E	10	C	3
	12	E	10	H	3

TUBE	A	B	C	D	Skt
12G11	12	C	5	H	10
	12	D	5	C	10
12GA6	12	F	6	A	4
12G-B3	12	A	3	E	1
12G-B7	12	A	3	E	1
*12GC6	12	A	4	E	1
(Permissible Short A, F and one other Pin)					
*12GE5	12	A	1	C	10
(Normal Short D and K)					
*12GJ5	12	A	7	B	5
(Normal Shorts A, G)					
12G-K17	12	A	6	E	2
12GN6	12	E	6	A	4
	12	E	6	G	4
*12GN7	12	D	7	B	3
(Normal Shorts C, J)					
*12GT5	12	A	7	B	5
(Normal Short A, G)					
*12GV5	12	A	5	J	10
(Normal Shorts A, C, D, G, K)					
12GW6	12	A	6	E	1
*12H4	12	E	2	F	4
(Normal Short A, E)					
12H6	12	F	6	C	1
	12	F	6	E	1
12HE7	12	A	11	B	10
	12	A	11	J	10
*12HG7	12	C	7	B	3
(Normal Shorts C, J)					
*12HL5	12	A	1	B	3
(Disregard Shorts on F, H, and one other Pin)					
*12HL7	12	C	7	B	3
(Normal Shorts C, J)					

TUBE	A	B	C	D	Skt
12HU8	12	C	6	B	3
	12	C	6	F	3
12J5	12	E	6	E	1
12J7	12	F	6	K	1
12J8	12	D	6	A	3
	12	F	6	H	3
	12	F	6	J	3
*12JB6	12	A	7	B	5
(Normal Shorts A, G)					
12JN6	12	A	4	A	10
12JN8	12	D	6	A	3
	12	D	6	J	3
12JQ6	12	A	8	H	3
	12	G	8	F	3
*12JS6	12	A	10	E	10
(Normal Shorts A, C, D, K)					
*12JT6	12	A	7	B	5
(Normal Shorts A, G)					
12JZ8	12	C	7	G	10
	12	E	7	K	10
12K5	12	D	7	E	4
12K7	12	E	6	K	1
12K8	12	E	6	E	1
12KL8	12	D	6	B	3
	12	F	6	H	3
12L6	12	C	6	E	1
12MD8	12	D	6	F	5
	12	D	6	H	5
	12	D	6	J	5
12NK7	12	F	6	K	1
12Q7	12	F	6	K	1
	12	G	6	E	1
	12	G	6	D	1
12R5	12	C	5	B	4

TUBE	A	B	C	D	Skt
*12R-K19	12	A	10	B	3
(Disregard Shorts)					
12R-LL3	12	E	10	B	3
	12	E	10	G	3
12RLL5	12	D	6	B	3
	12	D	6	G	3
12S8	12	F	6	K	2
	12	G	6	D	2
	12	G	6	C	2
	12	G	6	A	2
12SA7	12	D	6	E	1
12SC7	12	F	6	C	2
	12	F	6	D	2
12SF5	12	F	6	C	2
12SF7	12	D	6	B	2
	12	G	6	E	2
12SG7	12	D	5	D	1
12SH7	12	D	5	D	1
12SJ7	12	E	6	D	1
12SK7	12	D	6	D	1
12SL7	12	F	6	A	2
	12	F	6	D	2
12SN7	12	E	6	A	2
	12	E	6	D	2
12SQ7	12	F	6	B	2
	12	G	6	D	2
	12	G	6	E	2
12SR7	12	E	6	B	2
	12	G	6	D	2
	12	G	6	E	2
12SS7	12	E	6	D	1
12ST7	12	E	6	B	2
	12	G	6	D	2
	12	G	6	E	2

TUBE	A	B	C	D	Skt
12SW7	12	E	6	B	2
	12	G	6	D	2
	12	G	6	E	2
12SX7	12	E	6	A	2
	12	E	6	D	2
12SY7	12	D	6	E	1
12T10	12	C	6	H	10
	12	D	6	C	10
12TE8	12	F	6	E	1
	12	F	6	K	1
12TE9	12	F	6	E	3
	12	F	6	K	3
12U7	12	G	10	B	3
	12	G	10	G	3
12V6	12	C	6	E	1
12W6	12	C	6	E	1
12X4	12	B	6	A	4
	12	B	6	F	4
*13CM5	13	A	3	E	1
(Permissible Short A and one other Pin)					
13CW4	13	F	6	D	6
13D3	13	G	10	G	3
	13	G	10	B	3
13DE7	13	C	3	B	3
	13	E	3	G	3
13DR7	13	C	3	B	3
	13	E	3	G	3
13EC7	13	D	3	A	3
13EM7	13	D	6	A	2
	13	F	6	D	2
13FD7	13	C	2	C	3
	13	F	2	G	3
13FM7	13	C	9	C	10
	13	E	9	K	10

TUBE	A	B	C	D	Skt
13FR7	13	F	3	G	3
	13	C	3	B	3
†*13GB5	13	A	2	A	12
(Normal Shorts C, F, G, H)					
13GC8	13	C	6	J	3
	13	E	6	B	3
13GF7	13	C	6	B	5
	13	G	6	J	5
13J10	13	C	6	A	10
	13	H	6	F	10
*13JZ6	13	A	8	E	10
(Normal Shorts D, K)					
13JZ8	13	C	7	G	10
	13	E	7	K	10
13V10	13	F	6	C	10
	13	C	6	H	10
13Z10	13	C	6	A	10
	13	H	6	F	10
14A4	14	E	5	F	9
14A5	14	C	6	F	9
(†See Magnoval Note on Page 8)					
14A7	14	E	6	F	9
14AF7	14	E	6	D	9
	14	E	6	E	9
14B6	14	F	4	C	9
	14	G	4	E	9
	14	G	4	F	9
14B8	14	F	6	D	9
14BL11	14	E	6	C	10
	14	E	6	E	10
	14	C	6	A	10
14BR11	14	C	6	B	10
	14	E	6	H	10
	14	E	6	K	10
14C5	14	C	6	F	9

TUBE	A	B	C	D	Skt
14C7	14	E	6	F	9
14DA7	14	C	2	C	3
	14	E	2	G	3
14E6	14	F	4	C	9
	14	G	4	E	9
	14	G	4	F	9
14E7	14	E	6	F	9
	14	G	6	D	9
	14	G	6	C	9
14F7	14	F	6	D	9
	14	F	6	E	9
14G6	14	F	10	B	3
	10	G	10	F	3
	14	G	10	H	3
14GT8	14	F	6	B	3
	14	F	6	F	3
	14	F	6	H	3
14GW8	14	C	6	H	3
	14	G	6	A	3
14H7	14	D	6	F	9
14J7	14	D	6	F	9
	14	F	6	D	9
14JG8	14	G	6	B	3
	14	G	6	F	3
	14	F	6	H	3
14L7	14	F	4	F	9
	14	G	4	E	9
	14	G	4	C	9
14N7	14	E	6	D	9
	14	E	6	E	9
14Q7	14	E	6	D	9
14R7	14	F	6	F	9
	14	G	6	D	9
	14	G	6	C	9

TUBE	A	B	C	D	Skt
14S7	14	D	6	F	9
	14	F	6	D	9
14V7	14	E	6	F	9
14W7	14	D	4	F	9
14X7	14	F	6	C	9
	14	G	6	E	9
	14	G	6	F	9
14Y4	14	B	4	C	9
	14	B	4	F	9
14Y7	14	D	6	B	3
	14	F	6	J	3
15A6	15	C	6	B	3
15A8	15	F	6	C	1
	15	C	6	D	1
15AB9	15	D	6	A	11
	15	D	6	G	11
15AF11	15	C	6	A	10
	15	F	6	C	10
	15	F	6	F	10
15BD7	15	F	6	B	3
	15	G	6	F	3
	15	G	6	H	3
15BD11	15	D	6	A	10
	15	E	6	C	10
	15	F	6	F	10
*15CW5	15	C	1	B	3
(Disregard Shorts except H-K)					
15DQ8	15	D	6	A	3
	15	D	6	H	3
15EA7	15	D	6	A	2
	15	F	6	A	4
15EW6	15	D	6	A	4
15EW7	15	C	3	G	3
	15	F	3	B	3

TUBE	A	B	C	D	Skt
15FM7	15	C	9	C	10
	15	E	9	K	10
15FY7	15	C	9	C	10
	15	E	9	K	10
*15HA6	15	C	3	B	3
(Normal Shorts F, G)					
*15HB6	15	C	3	B	3
(Normal Shorts F, H)					
15KY8	15	C	6	B	5
	15	G	6	J	5
15LE8	15	D	6	J	3
15MF8	15	A	8	F	10
	15	E	8	K	10
*16A5	16	C	9	B	3
(Permissible Short F and one other Pin)					
16A8	16	C	6	C	3
	16	E	6	A	3
16AK9	16	E	7	C	10
	16	E	7	K	10
	16	B	7	J	10
*16AQ3	16	(See Last Page)			
16BQ11	16	E	6	E	10
	16	E	6	K	10
16BX11	16	D	6	B	10
	16	E	6	E	10
	16	E	6	H	10
*16C-B28	16	A	4	E	10
(Normal Shorts)					
*16G-B16	16	A	5	A	1
(Normal Shorts C, D, F, H)					
16GK6	16	C	3	B	3
16GK8	16	C	6	C	3
	16	F	6	A	3

TUBE	A	B	C	D	Skt
*16GY5	16	A	5	J	10
(Normal Shorts A, C, D, G, K)					
16KA6	16	A	8	E	10
16LU8	16	B	8	F	10
	16	E	8	K	10
16Y9	16	C	6	H	11
	16	D	6	A	11
17A8	17	D	7	B	3
	17	E	7	J	3
17AB9	17	D	6	A	11
	17	D	6	F	11
17AB10	17	C	6	A	10
	17	E	6	F	10
17AV5	17	A	6	A	1
17AX3	17	A	11	D	10
17AX4	17	A	2	E	2
*17AY3	17	A	8	B	5
(Disregard Shorts except H-K)					
†*17B-B14	17	A	1	B	12
(Normal Shorts C, F, G, H)					
17BE3	17	A	4	K	10
(†See Magnoval Note on Page 8)					
17BF11	17	C	6	H	10
	17	D	6	C	10
*17BH3	17	A	8	B	5
(Disregard Shorts except H-K)					
17BJ6	17	D	6	A	4
17BQ6	17	A	6	E	1
*17BR3	17	A	2	J	3
(Disregard Shorts except H-K)					
*17BS3	17	A	8	B	5
(Disregard Shorts except H-K)					
17BW3	17	A	4	K	10
*17BZ3	17	A	4	K	10
(Disregard Shorts except H-K)					

TUBE	A	B	C	D	Skt
17C5	17	C	5	B	4
17C8	17	F	6	B	3
	17	G	6	G	3
	17	G	6	H	3
17C9	17	E	6	A	3
	17	E	6	G	3
17CA5	17	C	5	B	4
*17CK3	17	A	2	G	5
(Disregard Shorts except H-K)					
*17CL3	17	A	2	G	5
(Disregard Shorts except H-K)					
17CQ4	17	A	2	E	2
*17CT3	17	A	2	F	3
(Disregard Shorts except H-K)					
17CU5	17	C	5	B	4
17D4	17	A	2	E	2
17DE4	17	A	2	E	2
17DL8	17	C	6	B	3
	17	D	6	J	3
17DM4	17	A	2	E	2
17DQ4	17	A	2	E	2
17DQ6	17	A	6	E	1
*17DW4	17	A	8	B	5
(Disregard Shorts except H-K)					
17EM7	17	D	6	A	2
	17	F	6	D	2
17EW8	17	E	6	B	3
	17	E	6	G	3
17G-B3	17	A	3	E	1
*17GE5	17	A	1	C	10
(Normal Shorts D, K)					
*17GJ5	17	A	7	B	5
(Normal Short A, G)					
*17GT5	17	A	7	B	5
(Normal Short A, G)					

TUBE	A	B	C	D	Skt
*17GV5	17	A	5	J	10
(Normal Shorts A, C, D, G, K)					
17GV8	(See 18GV8)				
17GW6	17	A	6	E	1
*17H3	17	A	7	C	8
(Disregard All Shorts except H-K)					
†*17H-B25	17	A	1	B	12
(Normal Shorts C, F, G, H)					
17HC8	17	C	6	C	3
	17	F	6	A	3
*17JB6	17	A	7	B	5
(Normal Shorts A, G)					
*17JG6	17	A	1	B	5
(Normal Shorts D, K)					
17JK8	17	F	6	G	3
	17	E	6	B	3
17JN6	17	A	4	A	10
*17JM6	17	A	9	E	10
(Normal Shorts D, K)					
17JQ6	17	A	8	H	3
	17	G	8	F	3
17JR6	17	A	1	B	5
(†See Magnoval Note on Page 8)					
*17JT6	17	A	7	B	5
(Normal Shorts A, G)					
17JZ8	17	C'	7	G	10
	17	E	7	K	10
*17KV6	17	A	1	B	5
(Normal Shorts C, F, G, H)					
†17KW6	17	B	9	A	12
(Normal Shorts C, F, G, H)					
17L6	17	C	6	E	1
17LD8	17	C	6	B	5
	17	G	6	J	5

TUBE	A	B	C	D	Skt
17N8	17	F	6	B	3
	17	G	6	G	3
	17	G	6	H	3
17R5	17	C	5	B	4
17R-HH2	17	E	6	B	3
	17	E	6	G	3
17W6	17	C	6	E	1
17X10	17	B	6	A	10
	17	H	6	F	10
17Y9	17	D	6	A	11
	17	C	6	H	11
*17Z3	17	A	2	J	3
(Disregard All Shorts except H-K)					
18A5	18	A	6	A	1
18AJ10	18	F	6	C	10
	18	B	6	H	10
18AK5	18	E	2	A	4
18AQ5	18	C	8	A	4
18D2	10	D	6	J	3
	10	D	6	B	3
18DZ8	18	C	6	A	3
	18	F	6	C	3
18FW6	18	D	6	A	4
18FX6	18	E	6	A	4
18FY6	18	F	6	A	4
	18	G	6	E	4
	18	G	6	F	4
†*18GB5	18	A	2	A	12
(Normal Shorts C, F, G, H)					
18GD6	18	D	6	A	4
18GE6	18	F	6	A	4
	18	G	6	E	4
	18	G	6	F	4

TUBE	A	B	C	D	Skt
18GV8	18	C	6	J	3
	18	E	6	B	3
18HB8	18	C	6	J	3
	18	F	6	A	3
18J6	18	E	6	E	4
	18	E	6	F	4
18RAL1	18	C	3	B	3
	18	F	3	G	3
19A3	19	A	7	E	4
19AJ8	19	E	6	B	3
	19	F	6	J	3
19AQ5	19	C	8	A	4
19AU4	19	A	2	E	2
19BG6	19	A	6	E	1
19BX6	19	D	1	B	3
19BY7	19	D	3	B	3
19C8	19	F	6	H	3
	19	G	6	F	3
	19	G	6	B	3
	19	G	6	A	3
*19CG3	19	A	4	K	10
(Disregard Shorts except H-K)					
19CL8	19	D	6	A	3
	19	D	6	J	3
19CS4	19	A	6	E	2
(†See Magnoval Note on Page B)					
19D8	19	E	6	B	3
	19	F	6	J	3
19DC8	19	E	6	B	3
	19	G	6	G	3
	19	G	6	H	3
*19DE3	19	A	4	K	10
(Disregard Shorts except H-K)					
19DE7	19	C	3	B	3
	19	E	3	G	3

TUBE	A	B	C	D	Skt
19EA8	19	D	6	B	3
	19	D	6	J	3
19EW7	19	C	3	G	3
	19	F	3	B	3
19EZ8	19	E	6	B	3
	19	E	6	G	3
	19	E	6	J	3
19FL8	19	E	6	B	3
	19	G	6	G	3
	19	G	6	H	3
19GQ7	19	E	3	B	3
	19	E	3	F	3
	19	E	3	H	3
19HR6	19	D	6	A	4
19HS6	19	E	6	A	4
19HV8	19	D	6	J	3
	19	F	6	A	3
19J6	19	E	6	E	4
	19	E	6	F	4
19JN8	19	D	6	J	3
	19	D	6	A	3
†*19KF6	19	A	1	G	12
(Normal Shorts H and one other Pin)					
19KG8	19	E	6	B	3
	19	D	6	J	3
19MR9	19	F	6	A	4
19M-R10	19	E	6	A	4
19Q9	19	D	6	B	3
	19	D	6	H	3
19R-LL1	(See Last Page)				
19R-P11	19	C	6	A	8
*19SU	19	A	2	J	3
(Disregard All Shorts except H-K)					

TUBE	A	B	C	D	Skt
19T8	19	F	6	H	3
	19	G	6	F	3
	19	G	6	B	3
	19	G	6	A	3
*19U3	19	A	2	J	3
(Disregard All Shorts except H-K)					
19V8	19	F	6	F	3
	19	G	6	J	3
	19	G	6	G	3
	19	G	6	B	3
*19W3	19	A	2	J	3
(Disregard All Shorts except H-K)					
*19X3	19	A	2	J	3
(Disregard All Shorts except H-K)					
19X8	19	E	6	B	3
	19	E	6	G	3
*19Y3	19	A	2	J	3
(Disregard All Shorts except H-K)					
*20AQ3	20	(See Last Page)			
20D3	12	F	10	B	3
	12	F	10	G	3
20D4	20	D	6	B	3
	20	D	6	J	3
20EQ7	20	E	6	B	3
	20	G	6	H	3
20EW7	20	C	3	G	3
	20	F	3	B	3
20EZ7	20	C	6	B	13
	20	F	6	G	13
(See back of book for Mighty Mites not having socket #13)					
20J8	20	E	6	K	1
	20	F	6	E	1
*20P18	15	C	1	B	3
(Disregard All Shorts except H-K)					

TUBE	A	B	C	D	Skt
*21A6	21	C	1	B	3
(Permissible Short F or G and one other Pin)					
21A7	21	E	6	F	9
	21	F	6	D	9
*21B6	21	C	1	B	3
(Permissible Short F or G and one other Pin)					
21EX6	21	A	6	E	1
21GY5	21	A	5	J	10
(Normal Shorts A, C, D, G, K)					
*21HB5	21	A	3	A	10
(Normal Shorts D, K)					
*21HD5	21	A	1	C	10
(Normal Shorts D, E, J, K)					
*21HJ5	21	A	1	C	10
(Normal Shorts D, E, J, K)					
21JV6	21	A	6	A	10
*21JZ6	21	A	8	E	10
(Normal Shorts D, K)					
21KA6	21	A	8	E	10
†*21KQ6	21	A	1	H	12
(Normal Shorts B, C, F, G)					
*21LG6	21	A	5	J	10
(Normal Shorts A, C, D, K)					
21LR8	21	C	6	B	5
	21	D	6	J	5
*21LU8	21	B	8	F	10
	21	E	8	K	10
(Normal Shorts F, G)					
*22BH3	22	A	8	B	5
(Disregard All Shorts except H-K)					
22BW3	22	A	4	K	10
22DE4	22	A	2	E	2
*22JF6	22	A	7	B	5
(Normal Shorts A, G)					
22JG6	22	A	1	B	5
22JR6	22	A	1	B	5
*22JU6	22	A	7	B	5
(Normal Shorts A, G)					
*22KM6	22	A	7	B	5
(Normal Shorts A, G)					
*22KV6	22	A	1	B	5
(Normal Shorts C, F, G, H)					
*22JF6	22	A	7	B	5
(Normal Shorts A, G)					
*23JS6	23	A	10	E	10
(Normal Shorts A, C, D, K)					
23Z9	23	E	7	C	10
	23	E	7	K	10
	23	C	7	H	10
24AX4	24	A	2	E	2
24BF11	24	C	6	H	10
	24	D	6	C	10
24GA7	24	A	2	D	10
	24	A	2	A	10
*24JE6	24	A	7	B	5
(Normal Shorts A, G)					
24JZ8	24	C	7	C	10
	24	E	7	K	10
*24LQ6	24	A	2	F	5
(Normal Shorts A, G)					
25A6	25	C	6	E	1
25A7	25	B	6	F	1
	25	C	6	E	1
25AC5	25	F	6	E	1
25AU4	25	A	2	E	2
25AV5	25	A	6	A	1
25AX4	25	A	2	E	2
25B6	25	C	6	E	1
25B8	25	E	6	K	1
	25	F	6	H	1

TUBE	A	B	C	D	Skt
†*25B-BT4	25	A	1	B	12
(Normal Shorts C, F, G, H)					
25BK5	25	C	8	C	3
25BQ6	25	A	6	E	1
*25BR3	25	A	1	J	8
(Disregard All Shorts except H-K)					
25C5	25	C	5	B	4
25C6	25	C	6	E	1
25CA5	25	C	5	B	4
*25CG3	25	A	4	K	10
(Disregard All Shorts except H-K)					
25CD6	25	A	6	E	1
*25CK3	25	A	2	G	5
(Disregard Shorts except H-K)					
25CM3	25	A	2	G	5
*25CR5	25	C	9	C	3
(Normal Shorts A, B, F, G)					
25CU6	25	A	6	E	1
25D4	25	A	6	E	2
25D8	25	E	6	K	1
	25	G	6	H	1
	25	G	6	E	1
25DK4	25	B	8	E	4
25DN6	25	A	6	E	1
25DQ6	25	A	6	E	1
(†See Magnoval Note on Page 8)					
*25DT5	25	C	7	C	3
(Permissible Short H and one other Pin)					
25E5	25	C	1	E	1
25EC6	25	A	6	E	1
25EH5	25	C	5	B	4
25F5	25	C	5	B	4
25FY8	25	E	6	C	3
	25	F	6	A	3
25GF6	25	C	1	E	1

TUBE	A	B	C	D	Skt
25JQ6	25	A	8	H	3
	25	G	8	F	3
25JZ8	25	C	7	G	10
	25	E	7	K	10
25L6	25	C	6	E	1
25M-P20	25	A	6	A	4
25SN7	25	E	6	A	2
	25	E	6	D	2
25U4	25	A	2	E	2
25W4	25	A	2	E	2
25W6	25	C	6	E	1
25X6	25	B	6	C	1
	25	B	6	E	1
25Y4	25	B	6	E	1
25Z4	25	B	6	E	1
25Z6	25	B	6	C	1
	25	B	6	E	1
26A6	26	D	6	A	4
26AQ8	26	D	6	B	3
	26	D	6	G	3
26BK6	26	F	6	A	4
	26	G	6	E	4
	26	G	6	F	4
26C6	26	F	6	A	4
	26	G	6	E	4
	26	G	6	F	4
(†See Magnoval Note on Page 8)					
26CG6	26	E	6	A	4
26D6	26	E	6	A	4
26E6	26	C	6	E	1
26HU5	26	A	5	A	2
26Z5	26	B	10	A	3
	26	B	10	F	3

TUBE	A	B	C	D	Skt
27BL7	27	D	6	B	3
	27	D	6	J	3
27BL8	27	D	6	B	3
	27	D	6	J	3
†*27GB5	27	A	2	A	12
(Normal Shorts C, F, G, H)					
†*27KG6	27	A	1	H	5
(Normal Shorts B, C, F, G)					
28AK8	28	F	6	H	3
	28	G	6	F	3
	28	G	6	B	3
	28	G	6	A	3
28D7	28	D	6	B	9
	28	D	6	G	9
†*28GB5	28	A	2	A	12
(Normal Shorts C, F, G, H)					
*28HA6	28	C	3	B	3
(Normal Short F, G)					
*28HD5	28	A	1	C	10
(Normal Shorts D, E, J, K)					
28Z5	28	B	4	C	9
	28	B	4	F	9
29GK6	29	C	3	B	3
*29HA6	29	C	3	B	3
(Normal Shorts F, G)					
†*29KQ6	29	A	1	H	12
(Normal Shorts B, C, F, G)					
30A5	30	C	5	B	4
*30AE3	30	(See Last Page)			
*30AG3	30	(See Last Page)			
30AG11	30	E	6	E	10
	30	E	6	H	10
	30	F	6	C	10
	30	F	6	K	10
30C1	9	D	6	B	3
	9	D	6	J	3

TUBE	A	B	C	D	Skt
30C13	9	D	6	B	3
	9	D	6	J	3
*30CW5	30	C	1	B	3
(Permissible Short F or H and one other Pin)					
*30HD5	30	A	1	C	10
(Normal Shorts D, E, J, K)					
*30HJ5	30	A	1	C	10
(Shorts D, E, J, K)					
30KD6	30	A	5	J	10
30L1	7	E	8	B	3
	7	E	8	F	3
30M-P27	30	B	2	E	4
30P4	25	C	1	E	1
30P16	16	C	7	B	3
*30P18	15	C	1	B	3
(Permissible Short F or H and one other Pin)					
31AL10	31	F	7	A	10
	31	F	7	C	10
	31	A	7	H	10
*31JS6	31	A	10	E	10
(Normal Shorts A, C, D, K)					
*31LQ6	31	A	2	F	5
(Normal Shorts A, G)					
32A8	32	C	6	C	3
	32	G	6	A	3
32ET5	32	C	5	B	4
32GA7	32	A	2	D	10
	32	A	2	A	10
*32HQ7	32	A	8	B	10
	32	A	8	J	10
(Normal Shorts C, F, K)					
32L7	32	A	6	F	1
	32	C	6	E	1

TUBE	A	B	C	D	Skt
*33GT7	33	A	8	B	10
(Normal Shorts A, J)					
	16	A	10	A	10
(Normal Shorts G, H-K)					
*33GY7	33	A	8	B	10
(Normal Shorts J, K)					
	16	A	11	J	10
(Normal Shorts G, H-K)					
¢33HE7	33	A	11	B	10
	33	A	11	J	10
‡Long warm up time is normal					
33HK7	33	A	11	B	10
	33	A	11	J	10
33JV6	33	A	6	A	10
34CD3	34	A	4	K	10
*34CE3	34	A	4	K	10
(Disregard Shorts except H-K)					
34CM3	34	A	2	G	5
34GD5	34	C	2	E	4
*34R3	34	A	2	J	3
(Disregard Shorts except H-K)					
35A3	35	B	6	E	4
35A5	35	C	6	F	9
35B5	35	C	8	A	4
35C3	35	B	6	E	4
35C5	35	C	5	B	4
35CD6	35	A	6	E	1
*35D5	35	C	10	A	3
(Normal Short B, C, G, H)					
35DZ8	35	C	6	C	3
	35	F	6	A	3
35EH5	35	C	5	B	4
*35FM5	35	A	4	E	1
(Normal Short A, C, F, H)					
35GL6	35	C	7	B	4

TUBE	A	B	C	D	Skt
35HB8	35	C	6	J	3
	35	F	6	A	3
35L6	35	C	6	E	1
*35LR6	35	A	10	E	10
(Normal Shorts A, C, D, K)					
*35QL6	35	C	1	J	3
(Normal Shorts C, J)					
35W4	35	A	7	E	4
35X4	35	A	6	E	4
35Y4	35	A	4	B	9
35Z3	35	A	6	B	9
35Z4	35	B	6	E	1
35Z5	35	B	3	E	1
35Z6	35	B	6	C	1
	35	B	6	E	1
36AM3	36	A	7	E	4
*36KD6	36	A	10	E	10
(Normal Shorts A, D, J, K)					
*38A3	38	A	2	J	3
(Disregard All Shorts except H-K)					
‡38HE7	38	A	11	B	10
	38	A	11	J	10
‡Long warm up time is normal					
38HK7	38	A	11	B	10
	38	A	11	J	10
40FR5	40	C	5	B	4
†*40KG6	40	A	1	H	12
(Normal Shorts B, C, F, G)					
*40KD6	40	A	10	C	10
(Normal Shorts A, C, D, K)					
40Z5	40	B	3	E	1
*42KN6	21	A	10	E	10
(Disregard Shorts A, C, D, G, K, H-K)					
*45B5	45	C	1	B	3
(Normal Shorts F, G, H, J)					

TUBE	A	B	C	D	Skt
*45Z3	45	B	7	B	7
(Disregard All Shorts except H-K)					
45Z5	45	B	3	E	1
50A5	50	C	6	F	9
50AX6	50	A	6	C	1
	50	A	6	E	1
50B5	50	C	8	A	4
50BK5	50	C	8	C	3
50BM8	50	C	6	C	3
	50	F	6	A	3
50C5	50	C	5	B	4
50C6	50	C	6	E	1
50CA5	50	C	5	B	4
50CD6	50	A	6	E	1
50DC4	50	A	7	E	4
50E5	50	C	1	E	1
50EH5	50	C	5	B	4
50FA5	50	C	5	B	4
50FE5	50	C	6	E	1
50FK5	50	C	5	B	4
50FY8	50	E	6	C	3
	50	F	6	A	3
50HC6	50	C	7	B	4
50HC8	50	C	7	B	4
50HK6	50	C	7	B	4
50HN5	50	C	1	B	3
50JY6	50	A	6	E	1
50L6	50	C	6	E	1
(†See Magnoval Note on Page B)					
50X6	50	A	6	C	9
	50	A	6	F	9
50Y6	50	B	6	C	1
	50	B	6	E	1
50Y7	50	A	7	C	1
	50	A	7	E	1

TUBE	A	B	C	D	Skt
50Z6	50	A	6	C	1
	50	A	6	E	1
50Z7	50	A	7	C	1
	50	A	7	E	1
53HK7	53	A	11	B	10
	53	A	11	J	10
*55N3	50	A	2	J	3
(Disregard All Shorts except H-K)					
‡58HE7	58	A	6	B	10
	58	A	6	J	10
60E3	60	A	6	E	4
60EH5	50	D	5	B	4
60FX5	50	D	5	B	4
*60HL5	60	A	1	B	3
(Disregard Shorts on F, H, and one other Pin)					
‡70A7	50	D	7	E	1
‡70L7	50	C	6	H	1
	50	D	6	E	1
‡117L7	50	F	6	D	1
‡117N7	50	F	6	D	1
‡117P7	50	F	6	D	1
‡117Z3	50	F	1	E	4
‡117Z4	50	F	6	E	1
‡117Z6	50	F	6	C	1
	50	F	6	E	1
401A	6	F	8	A	4
403B	6	E	8	A	4
*407A	20	F	6	C	3
	20	F	6	G	3
(Normal Shorts A, J)					
408A	20	E	2	A	4
*815	6	A	5	B	2
(Normal Shorts A, C, F)					

TUBE	A	B	C	D	Skt
*1201	6	F	5	A	9
(Disregard Shorts)					
‡1203A	6	F	6	D	9
1204	6	F	7	E	9
1206	6	F	6	D	9
	6	F	6	E	9
1216	6	G	6	E	4
	6	G	6	F	4
1217	6	F	6	A	4
‡Long warm up time is normal					
1219	(See Last Page)				
1220	6	D	2	A	4
1223	6	F	6	K	1
1231	6	E	6	F	9
1232	6	F	6	F	9
*1238	28	D	6	B	2
(Disregard All Shorts except H-K)					
1252	6	D	6	J	3
	6	D	2	A	4
1273	6	F	6	F	9
1280	12	F	6	F	9
1282	6	D	4	F	9
*1291	6	F	4	C	2
	6	F	4	F	2
(Normal Shorts A, H-K)					
1293	1	F	5	F	9
1294	1	H	6	D	9
1299	1	E	8	F	9
1611	6	B	6	E	1
1612	6	F	6	K	1
1613	6	B	6	E	1
1614	6	A	6	E	1
1619	2	A	6	E	1
1620	6	F	6	K	1

TUBE	A	B	C	D	Skt
1621	6	C	6	E	1
1622	6	C	6	E	1
1626	12	E	6	E	1
1631	12	C	6	E	1
1632	12	C	6	A	2
1633	25	E	6	E	1
	25	E	6	D	2
1634	12	F	6	C	2
	12	F	6	D	2
1635	6	F	6	D	1
	6	F	6	E	1
1649	6	D	6	D	1
*1654	1	H	2	K	7
(Disregard Shorts)					
1655	6	F	6	C	2
	6	F	6	D	2
*1662	3	F	5	D	7
(Normal Short B, F)					
1679	6	E	6	E	4
	6	E	6	F	4
1852	6	D	6	D	1
1853	6	D	6	D	1
*4037	6	C	3	K	1
(Normal Shorts E, H)					
5590	6	F	8	A	4
5591	6	E	8	A	4
5610	6	D	5	F	4
5618	6	C	5	F	7
5642	1	H	6	K	4
(Insert two tube leads into pins 3 and 4; touch cap lead to top lead on tube.)					
5654	6	D	2	A	4
5656	6	E	2	A	4
5659	12	C	6	E	1

TUBE	A	B	C	D	Skt
5660	12	E	6	K	1
	12	G	6	D	1
	12	G	6	E	1
5661	12	D	6	D	1
5670	(See Last Page)				
5679	6	E	4	C	9
	6	E	4	F	9
5686	6	C	3	B	3
(Normal Shorts A, F, H, J)					
5687	12	D	9	B	3
	12	D	9	G	3
5691	6	F	6	A	2
	6	F	6	D	2
5692	6	E	6	A	2
	6	E	6	D	2
5693	6	F	6	D	1
5694	6	F	6	D	1
	6	F	6	E	1
5725	6	E	6	A	4
5726	6	E	6	B	3
	6	E	6	G	3
5732	6	E	6	K	1
5749	6	D	6	A	4
5750	6	D	6	A	4
5751	12	F	10	B	3
	12	F	10	G	3
5763	6	C	9	J	3
5814	12	E	10	B	3
	12	E	10	G	3
5824	25	C	6	E	1
5838	12	B	6	C	1
	12	B	6	E	1
5839	26	B	6	C	1
	26	B	6	E	1

TUBE	A	B	C	D	Skt
5844	6	G	6	E	4
	6	G	6	F	4
5845	5	G	8	A	4
	5	G	8	E	4
5852	6	B	6	C	1
	6	B	6	E	1
5871	6	C	6	E	1
5879	6	F	6	A	3
5881	6	C	6	E	1
5890	6	G	8	B	10
5910	1	G	5	F	7
5915	6	E	6	A	4
5920	6	E	6	E	4
	6	E	6	F	4
5928	6	F	2	J	3
*5931	5	A	6	D	1
	5	A	6	F	1
(Normal Short H, H-K)					
5932	6	C	6	E	1
5963	12	E	10	B	3
	12	E	10	G	3
5964	6	E	6	E	4
	6	E	6	F	4
5965	12	E	10	B	3
	12	E	10	G	3
*5969	1	G	6	B	2
	1	G	6	G	2
(Normal Short A, H-K)					
*5970	1	G	6	B	2
	1	G	6	G	2
(Normal Shorts A, H-K)					
5992	6	C	6	E	1
5998	6	C	6	A	2
	6	C	6	D	2
6000	26	C	6	A	1

TUBE	A	B	C	D	Skt
*6004	5	B	6	K	1
	5	B	6	K	1
(Change clip lead from one tube cap to other; Normal Short H, H-K)					
6005	6	C	8	A	4
6006	6	D	5	D	1
6028	20	E	2	A	4
6042	6	E	6	A	2
	6	E	6	D	2
6045	6	E	6	E	4
	6	E	6	F	4
6046	25	C	6	E	1
6057	12	G	10	B	3
	12	G	10	G	3
6058	6	E	6	B	4
	6	E	6	G	4
6059	6	F	6	K	1
6060	12	E	10	B	3
	12	E	10	G	3
6061	6	C	6	E	1
6063	6	B	6	A	4
	6	B	6	F	4
6064	6	D	6	A	4
6065	6	E	6	A	4
6066	6	F	6	A	4
	6	G	6	E	4
	6	G	6	F	4
6067	12	D	10	B	3
	12	D	10	G	3
6072	12	E	10	B	3
	12	E	10	G	3
6080	6	A	6	A	2
	6	A	6	D	2

TUBE	A	B	C	D	Skt
6082	26	A	6	A	2
	26	A	6	D	2
6084	6	G	6	J	3
6085	12	E	10	B	3
	12	E	10	G	3
*6087	5	B	6	D	1
	5	B	6	F	1
(Normal Short H, H-K)					
*6094	6	C	7	A	3
(Normal Short B, C, G, J, H-K)					
6095	6	C	8	A	4
6096	6	E	2	A	4
6097	6	E	6	B	4
	6	E	6	G	4
*6098	6	G	6	E	2
(Emission and Short Test only; Normal Short H, H-K)					
6099	6	E	6	E	4
	6	E	6	F	4
6100	6	E	1	F	4
6101	6	E	6	E	4
	6	E	6	F	4
*6106	5	B	6	D	1
	5	B	6	F	1
(Normal Short H, H-K)					
6113	6	F	6	A	2
	6	F	6	D	2
6118	6	G	6	K	1
	6	H	6	D	1
	6	H	6	E	1
*6132	6	C	1	B	3
(Permissible Short F and one other Pin)					
6134	6	D	6	D	1
6135	6	E	1	F	4
6136	6	D	6	A	4

TUBE	A	B	C	D	Skt
6137	6	D	6	D	1
6145	6	E	6	F	9
*6146	6	C	7	E	1
(Normal Short A, D)					
*6159	26	C	7	E	1
(Normal Short A, D)					
6180	6	E	6	A	2
	6	E	6	D	2
6186	6	E	2	A	4
6187	6	E	6	A	4
6188	6	F	6	A	2
	6	F	6	D	2
6189	12	D	10	B	3
	12	D	10	G	3
*6197	6	C	10	B	3
(Normal Short C, H)					
6201	12	E	10	B	3
	12	E	10	G	3
6202	6	B	6	A	4
	6	B	6	F	4
6203	6	B	6	A	3
	6	B	6	J	3
6211	12	F	10	B	3
	12	F	10	G	3
*6215	1	H	3	K	1
(Normal Short H, H-K)					
*6216	6	C	7	B	3
(Normal Short C, H)					
6218	6	H	9	B	3
6227	6	C	1	B	3
6265	6	E	6	A	4
6267	6	F	2	J	3
6277	6	C	1	B	3
*6287	6	C	2	H	3
(Normal Short C, F, J)					

TUBE	A	B	C	D	Skt
*6293	6	A	1	E	1
(Normal Short D, F)					
6325	6	A	6	C	2
	6	A	6	E	2
6327	6	C	1	E	1
6336	6	C	6	A	2
	6	C	6	D	2
6350	12	E	10	C	3
	12	E	10	H	3
6352	3	G	4	E	2
6360	12	C	10	A	3
	12	C	10	C	3
*6384	6	G	6	E	2
(Emission and Short Test Only; Normal Short H, H-K)					
6386	(See Last Page)				
6394	26	C	6	A	2
	26	C	6	D	2
6414	12	E	10	B	3
	12	E	10	G	3
6417	12	A	10	H	3
6463	12	E	10	C	3
	12	E	10	H	3
6485	6	E	6	A	4
6516	6	C	6	A	4
6520	6	A	6	A	2
	6	A	6	D	2
6528	6	C	6	A	2
	6	C	6	D	2
6550	6	A	6	E	1
6660	6	D	6	A	4
6661	6	E	6	A	4
6662	6	E	6	A	4
6663	6	E	6	B	4
	6	E	6	G	4

TUBE	A	B	C	D	Skt
6664	6	E	2	F	4
6669	6	C	8	A	4
6676	6	D	6	A	4
*6677	6	C	1	B	3
(Normal Short C, H)					
6678	6	D	6	B	3
	6	D	6	J	3
6679	12	E	10	B	3
	12	E	10	G	3
6680	12	D	10	B	3
	12	D	10	G	3
6681	12	F	10	B	3
	12	F	10	G	3
6686	6	C	1	B	3
6687	6	F	6	A	4
6688	6	D	1	B	3
6689	6	E	6	B	3
6754	6	B	6	A	3
	6	B	6	J	3
*6792	6	F	9	E	1
(Normal Short C, E)					
6829	12	E	10	B	3
	12	E	10	G	3
6840	12	D	10	C	3
	12	D	10	H	3
6851	6	F	10	B	3
	6	F	10	G	3
*6853	5	B	6	D	1
	5	B	6	F	1
(Normal Short H, H-K)					
*6870	12	C	7	B	3
(Normal Shorts C, J)					
*6877	6	C	7	A	3
(Normal Short C, J, H-K)					

TUBE	A	B	C	D	Skt
*6883	12	C	1	E	1
(Normal Shorts D, F)					
6887	6	E	6	B	4
	6	E	6	G	4
6888	6	C	6	D	1
*6893	12	A	1	E	1
(Normal Shorts D, F)					
6900	12	C	9	B	3
	12	C	9	G	3
6913	12	E	10	B	3
	12	E	10	G	3
6919	6	E	6	B	4
	6	E	6	G	4
6922	6	E	6	B	3
	6	E	6	G	3
6927	6	E	6	E	4
	6	E	6	F	4
6928	6	C	8	A	4
6939	12	C	10	A	3
	12	C	10	C	3
6954	6	E	6	A	4
6955	12	D	10	B	3
	12	D	10	G	3
6968	6	E	2	A	4
*6973	6	C	7	C	3
(Normal Shorts A, H)					
7000	6	F	6	K	1
7001	6	C	2	A	4
7025	12	G	10	B	3
	12	G	10	G	3
*7027	6	C	7	E	1
(Normal Short A, D)					
7036	6	D	6	A	4
7044	12	C	9	B	3
	12	C	9	G	3

TUBE	A	B	C	D	Skt
*7054	13	C	7	B	3
(Permissible Short C, J)					
7055	13	E	6	B	4
	13	E	6	G	4
7056	13	E	6	A	4
7057	13	E	6	B	3
	13	E	6	G	3
7058	13	F	6	B	3
	13	F	6	G	3
7059	13	D	6	B	3
	13	D	6	J	3
7060	13	D	6	B	3
	13	D	6	H	3
*7061	13	C	7	C	3
(Normal Short A, H)					
7062	12	E	10	B	3
	12	E	10	G	3
7105	13	C	6	A	2
	13	C	6	D	2
7119	12	D	9	B	3
	12	D	9	G	3
*7137	6	H	1	G	4
(Emission and Short Test only; Normal Short E, F)					
7167	13	E	2	A	4
*7189	6	C	1	B	3
(Permissible Shorts F or H and one other Pin)					
7199	6	D	6	G	3
	6	E	6	J	3
*7212	6	C	5	E	1
(Normal Short A, F)					
7227	27	C	7	B	3
7236	6	C	6	A	2
	6	C	6	D	2

TUBE	A	B	C	D	Skt
7244	6	E	6	E	4
	6	E	6	F	4
*7245	6	H	1	G	4
(Emission and Short Test only; Normal Short E, F)					
7247	12	D	10	B	3
	12	G	10	G	3
7258	13	D	6	B	3
	13	D	6	H	3
7308	6	E	6	B	3
	6	E	6	G	3
7316	12	E	10	B	3
	12	E	10	G	3
7318	12	E	10	B	3
	12	E	10	G	3
*7320	6	C	1	B	3
(Permissible Shorts F or H and one other Pin)					
7355	6	C	6	F	1
*7358	6	A	1	E	1
(Normal Shorts D, F)					
7360	6	E	6	C	3
7370	40	D	8	B	3
	40	D	8	G	3
7408	6	C	6	E	1
*7534	6	C	3	E	1
(Permissible Shorts A or F and one other Pin)					
7543	6	D	6	A	4
*7551	12	C	1	B	3
(Normal Short C, H)					
*7558	6	C	1	B	3
(Normal Short C, H)					
7581	6	C	6	E	1
7586	6	F	6	D	6
7587	6	F	6	D	6

TUBE	A	B	C	D	Skt
7591	6	C	4	F	1
*7607	6	C	1	E	1
(Normal Short C, F)					
7643	6	D	6	B	3
	6	E	6	J	3
*7683	6	E	2	A	3
(Normal Shorts C, F, J)					
7687	6	E	6	B	3
	6	F	6	J	3
7693	6	E	6	A	4
7695	50	A	3	F	8
7699	6	D	10	A	3
	6	D	10	C	3
*7701	13	C	1	B	3
(Normal Short C, G, H, J)					
7716	13	D	6	G	3
	13	F	6	B	3
7717	6	E	2	A	4
7719	12	F	1	G	8
*7721	6	C	1	B	3
(Permissible Short F and one other Pin)					
*7722	6	C	1	B	3
(Permissible Short F and one other Pin)					
7724	14	F	6	H	3
	14	G	6	F	3
	14	G	6	B	3
7728	12	E	10	B	3
	12	E	10	G	3
7729	12	F	10	B	3
	12	F	10	G	3
7730	12	D	10	B	3
	12	D	10	G	3
7731	6	D	6	B	3
	6	D	6	J	3

TUBE	A	B	C	D	Skt
7732	6	D	6	A	4
*7733	12	C	7	B	3
(Normal Short C and J)					
7737	6	D	1	B	3
7754	6	A	3	F	8
*7788	6	C	1	B	3
(Normal Shorts F, J)					
7803	6	C	6	B	3
	6	C	6	G	3
7867	6	C	6	E	1
*7868	6	A	7	B	5
(Normal Short A, G)					
7892	12	D	9	B	3
	12	D	9	G	3
7895	6	G	6	D	6
7898	12	E	10	B	3
	12	E	10	G	3
*7984	13	C	1	K	10
(Disregard All Shorts except G, K)					
*8032	13	C	4	E	1
(Normal Short A, F)					
8056	6	G	6	D	6
*8058	6	G	2	K	6
Connect to large lug (Normal Short D & H)					
8068	6	D	6	E	1
8077	13	C	10	B	3
8102	13	E	6	C	3
	13	E	6	J	3
*8106	13	D	2	G	3
(Normal Shorts C, F, H, J)					
8113	6	D	2	A	4
*8149	12	A	1	K	10
(Normal Shorts B, C, D, H, J)					
*8150	13	A	1	K	10
(Normal Shorts B, D, E, F, G, H)					

TUBE	A	B	C	D	Skt
*8156	13	B	1	K	10
(Disregard All Shorts except G, K, H-K)					
8203	6	E	6	D	6
*8233	6	D	10	H	5
(Normal Shorts B, F)					
(Do NOT test for Shorts on TC114)					
*8255	6	H	1	H	3
(Normal Shorts C, F, G, J)					
*8556	6	G	1	H	8
(Normal Shorts C, E, F)					
*8278	6	C	8	C	5
(Normal Shorts B, F)					
*8298	6	A	1	E	1
(Normal Shorts D, F)					
8323	6	A	10	H	5
(Normal Shorts B, F)					
8327	6	C	6	B	3
8380	6	F	6	D	6
8382	6	E	6	D	6
8393	13	G	6	D	6
8417	6	A	6	E	1
8441	6	F	6	D	6
8445	6	D	6	B	3
	6	D	6	J	3
8446	6	D	6	A	3
	6	D	6	J	3
8447	12	C	10	B	3
	12	D	10	F	3
	12	D	10	G	3
8448	6	C	7	B	3
8449	6	D	6	B	3
	6	D	6	H	3
8456	6	F	6	D	6
8457	6	C	10	A	3
	6	C	10	C	3

TUBE	A	B	C	D	Skt
8458	6	A	10	A	3
	6	A	10	C	3
8489	6	D	6	B	3
	6	D	6	H	3
*8532	6	G	1	G	4
(Normal Shorts E, F)					
*8552	12	C	4	E	1
(Normal Shorts A, F)					
*8556	6	G	1	H	8
(Normal Shorts C, E, F)					
†*8608	6	B	2	H	12
(Normal Shorts G, J)					
9001	6	F	2	A	4
*9002	6	E	2	F	4
(Normal Short A and E)					
9003	6	E	2	A	4
*9006	6	F	1	E	4
(Normal Short B and G)					
A863	6	F	6	K	1
A1834	6	A	6	A	2
	6	A	6	D	2
(†See Magnoval Note on Page 8)					
AA91E	6	E	6	B	4
	6	E	6	G	4
B36	12	E	6	A	2
	12	E	6	D	2
B65	6	E	6	A	2
	6	E	6	D	2
B109	26	D	6	B	3
	26	D	6	G	3
B152	12	E	10	B	3
	12	E	10	G	3
B309	12	E	10	B	3
	12	E	10	G	3

TUBE	A	B	C	D	Skt
B319	7	E	7	B	3
	7	E	7	F	3
B329	12	D	10	B	3
	12	D	10	G	3
B339	12	F	10	B	3
	12	F	10	G	3
B719	6	D	6	B	3
	6	D	6	G	3
B739	12	E	10	B	3
	12	E	10	G	3
B749	12	D	10	B	3
	12	D	10	G	3
B759	12	F	10	B	3
	12	F	10	G	3
BPMO4	6	C	8	A	4
C10B	2	F	6	E	1
CC81E	12	E	10	B	3
	12	E	10	G	3
CXF80	4	D	6	B	3
	4	D	6	J	3
D2M9	6	E	6	B	4
	6	E	6	G	4
D63	6	F	6	C	1
	6	F	6	E	1
D77	6	E	6	B	4
	6	E	6	G	4
D152	6	E	6	G	4
	6	E	6	B	4
*D193	3	F	5	D	7
(Normal Short B, F)					
*D430	1	H	3	K	1
(Disregard Shorts)					
DAC32	1	G	6	K	1
	1	G	6	E	1

TUBE	A	B	C	D	Skt
DAE32	1	F	6	K	1
	1	G	6	E	1
DAF91	1	G	6	F	7
	1	H	6	C	7
DAF92	1	G	6	F	7
	1	H	6	D	7
DAF96	1	G	2	F	7
	1	H	2	C	7
DCC90	3	F	4	C	7
	3	F	4	E	7
DD6	6	E	6	B	4
	6	E	6	G	4
DD7	6	C	6	A	4
DDR7	6	D	6	A	4
DF33	1	F	6	K	1
DF91	1	F	5	F	7
DF92	1	F	5	F	7
DF96	1	G	5	F	7
DF97	1	G	2	A	4
DF904	1	F	5	F	7
DH63	6	F	6	K	1
	6	G	6	E	1
	6	G	6	D	1
DH74	12	F	6	K	1
	12	G	6	E	1
	12	G	6	D	1
DH76	12	F	6	K	1
	12	G	6	E	1
	12	G	6	D	1
DH77	6	F	6	A	4
	6	G	6	E	4
	6	G	6	F	4

TUBE	A	B	C	D	Skt
DH109	28	F	6	H	3
	28	G	6	F	3
	28	G	6	B	3
	28	G	6	A	3
DH147	6	F	6	K	1
	6	G	6	E	1
	6	G	6	D	1
DH149	6	F	4	F	9
	6	G	4	E	9
	6	G	4	C	9
DH719	6	F	6	H	3
	6	G	6	F	3
	6	G	6	B	3
	6	G	6	A	3
DK32	1	G	6	E	1
DK91	1	F	5	D	7
DK92	1	F	6	D	7
DK96	1	F	6	D	7
DL33	3	D	9	E	1
DL35	1	F	6	E	1
DL36	1	E	6	E	1
DL63	6	F	6	K	1
	6	G	6	E	1
	6	G	6	D	1
DL74M	12	F	6	K	1
	12	G	6	E	1
	12	G	6	D	1
*DL91	1	F	5	C	7
(Normal Short B, F)					
*DL92	3	F	5	C	7
(Normal Short B, F)					
*DL93	3	F	5	D	7
(Normal Short B, F)					
DL94	3	F	5	F	7

TUBE	A	B	C	D	Skt
*DL95	3	F	5	C	7
(Normal Short B, F)					
DL96	3	G	5	F	7
*DL193	3	F	5	D	7
DP51	6	E	2	A	4
DP61	6	E	2	A	4
*DY30	1	H	2	K	1
(Normal Short H, H-K)					
*DY70	1	H	6	K	3
(Insert two tube leads into Pins 3 and 4; touch cap lead to top lead on tube.)					
*DY80	1	H	1	K	8
(Disregard Shorts)					
*DY86	1	H	1	K	8
(Disregard Shorts)					
*DY87	1	H	1	K	8
(Disregard Shorts)					
E80CC	12	E	10	B	3
	12	E	10	G	3
E80CF	6	D	6	B	3
	6	E	6	J	3
E80F	6	G	6	J	3
E80L	6	C	1	B	3
E80T	6	H	9	B	3
E81CC	12	E	10	B	3
	12	E	10	G	3
E81L	6	C	1	B	3
E82CC	12	D	10	B	3
	12	D	10	G	3
E82CF	6	D	6	B	3
	6	D	6	J	3
E83CC	12	F	10	B	3
	12	F	10	G	3
E83F	6	E	6	B	3

TUBE	A	B	C	D	Skt
*E86C	6	D	1	F	8
(Normal Short C, G)					
*E88C	6	H	1	H	3
(Normal Shorts C, F, G, J)					
E88CC	6	E	6	B	3
	6	E	6	G	3
E90CC	6	E	6	E	4
	6	E	6	F	4
E90F	6	E	6	A	4
E91AA	6	E	6	B	3
	6	E	6	G	3
E91H	6	F	6	A	4
E92CC	6	E	6	C	3
	6	E	6	F	3
(Normal Short B, F)					
E95F	6	E	2	A	4
E130L	6	C	3	E	1
(Disregard Shorts on A, B, E, if any)					
E180CC	12	E	10	B	3
	12	E	10	G	3
E180F	6	D	1	B	3
E182CC	12	D	9	B	3
	12	D	9	G	3
E186F	6	D	1	B	3
E188CC	6	E	6	B	3
	6	E	6	G	3
EA50	2	E	2	A	4
EAA91	6	E	6	B	4
	6	E	6	G	4
EAA901	6	E	6	B	4
	6	E	6	G	4
EAB80	6	F	6	H	3
	6	G	6	G	3
	6	G	6	B	3
	6	G	6	A	3

TUBE	A	B	C	D	Skt
EABC80	6	F	6	H	3
	6	G	6	F	3
	6	G	6	B	3
	6	G	6	A	3
EAF801	6	D	6	B	3
	6	D	6	H	3
EB34	6	E	6	C	1
	6	E	6	E	1
EB91	6	E	6	B	4
	6	E	6	G	4
EBC33	6	E	6	K	1
	6	G	6	E	1
	6	G	6	D	1
EBC80	6	F	6	H	3
	6	G	6	F	3
	6	G	6	B	3
EBC81	6	F	6	H	3
	6	G	6	F	3
	6	G	6	B	3
EBC90	6	F	6	A	4
	6	G	6	E	4
	6	G	6	F	4
EBC91	6	F	6	A	4
	6	G	6	E	4
	6	G	6	F	4
EBF80	6	F	6	B	3
	6	G	6	G	3
	6	G	6	H	3
EBF81	6	E	6	B	3
	6	G	6	G	3
	6	G	6	H	3
EBF83	6	G	6	B	3
	6	G	6	G	3
	6	G	6	H	3

TUBE	A	B	C	D	Skt
EBF89	6	D	6	B	3
	6	G	6	G	3
	6	G	6	H	3
EC80	6	D	8	A	8
EC81	6	C	6	A	3
EC86	6	E	3	F	8
*EC88	6	H	1	H	3
(Normal Shorts A, C, F, G, J; Emission and Shorts Test Only)					
EC90	6	D	1	F	4
*EC91	6	E	7	A	4
(Normal Short B, E)					
EC92	6	E	2	F	4
*EC93	6	D	7	B	4
(Normal Short A, G)					
EC94	6	D	7	B	4
(Normal Short A, G)					
EC95	6	E	8	B	4
EC97	6	E	1	B	4
*EC806	6	D	1	E	8
(Normal Shorts C, G)					
EC900	6	E	2	A	4
*EC8010	6	G	1	H	8
(Normal Shorts C, E, F)					
*EC8020	6	G	1	H	8
(Normal Shorts C, E, F)					
ECC32	6	E	6	A	2
	6	E	6	D	2
ECC33	6	E	6	A	2
	6	E	6	D	2
ECC35	6	F	6	A	2
	6	F	6	D	2
ECC81	12	E	10	B	3
	12	E	10	G	3

TUBE	A	B	C	D	Skt
ECC82	12	D	10	B	3
	12	D	10	G	3
ECC83	12	F	10	B	3
	12	F	10	G	3
ECC84	6	D	8	F	3
	6	E	8	B	3
ECC85	6	D	6	B	3
	6	D	6	G	3
ECC86	6	E	6	B	3
	6	E	6	G	3
ECC88	6	D	6	B	3
	6	D	6	G	3
ECC89	6	D	8	B	3
	6	D	8	F	3
ECC91	6	E	6	E	4
	6	E	6	F	4
ECC180	6	E	6	G	3
	6	E	6	B	3
ECC186	12	D	10	B	3
	12	D	10	G	3
ECC189	6	D	10	B	3
	6	D	10	G	3
ECC230	6	A	6	A	2
	6	A	6	D	2
ECC801	12	E	10	B	3
	12	E	10	G	3
ECC802S	12	D	10	B	3
	12	D	10	G	3
ECC803	12	F	10	B	3
	12	F	10	G	3
ECC804	6	D	6	B	3
	6	D	6	G	3

TUBE	A	B	C	D	Skt
ECC807	6	G	6	B	3
	6	G	6	J	3
ECC808	6	G	6	A	3
	6	G	6	K	3
ECC960	6	E	6	F	4
	6	E	6	E	4
ECC962	6	E	6	C	3
	6	E	6	F	3
ECC2000	6	D	1	C	11
	6	D	1	H	11
ECF80	6	E	6	B	3
	6	E	6	J	3
ECF82	6	D	6	B	3
	6	D	6	J	3
ECF83	6	F	6	J	3
	6	F	6	B	3
ECF86	6	D	6	B	3
	6	D	6	F	3
ECF200	6	D	6	C	11
	6	E	6	K	11
ECF201	6	D	6	C	11
	6	D	6	K	11
ECF801	6	D	3	B	3
	6	E	3	J	3
ECF802	6	D	6	J	3
	6	D	6	B	3
ECF804	6	E	6	B	3
	6	D	6	J	3
ECH33	6	E	6	E	1
ECH35	6	D	6	K	1
ECH36	6	E	6	E	1
ECH80	6	E	6	B	3
	6	F	6	J	3

TUBE	A	B	C	D	Skt
ECH81	6	E	6	B	3
	6	E	6	J	3
ECH83	6	F	6	B	3
	6	G	6	J	3
ECH84	6	E	6	B	3
	6	E	6	J	3
ECH200	6	D	6	H	11
	6	E	6	C	11
ECL80	6	D	6	J	3
	6	F	6	B	3
ECL82	8	C	6	C	3
	8	F	6	A	3
ECL83	6	C	6	J	3
	6	G	6	B	3
ECL84	6	D	6	H	3
	6	F	6	A	3
ECL85	6	C	6	J	3
	6	E	6	B	3
ECL86	6	C	6	H	3
	6	G	6	A	3
ECLL800	6	F	6	B	3
	6	C	6	F	3
(†See Magnoval Note on Page B)					
†*ED500	6	G	2	H	12
(Disregard Shorts except H-K)					
EF5	6	D	1	B	3
EF13	6	D	1	B	3
EF39	6	E	6	K	1
EF80	6	D	1	B	3
EF81	6	F	9	B	3
*EF82	6	C	1	B	3
(Permissible Short F and one other Pin)					
EF85	6	D	3	B	3
EF86	6	F	2	J	3

TUBE	A	B	C	D	Skt
*EF89F	6	D	1	B	3
(Permissible Short F and one other Pin)					
EF91	6	D	6	A	4
EF92	6	E	6	A	4
EF93	6	D	6	A	4
EF94	6	D	6	A	4
EF95	6	E	2	A	4
EF96	6	D	6	A	4
EF97	6	D	6	A	4
EF98	6	D	6	A	4
EF183	6	D	1	B	3
EF184	6	D	1	B	3
EF190	6	D	6	A	4
EF804	6	F	1	J	3
EF806	6	F	2	J	3
EF812	6	D	1	B	3
EF861	6	D	1	B	3
EF905	6	D	2	A	4
EFL200	6	C	6	H	11
	6	D	6	A	11
EH90	6	D	6	A	4
EK90	6	D	6	A	4
EL33	6	F	6	E	1
EL34	6	A	6	E	1
*EL36	6	A	3	E	1
(Permissible Short A and one other Pin)					
EL37	6	C	6	E	1
EL38	6	C	6	E	1
*EL81	6	C	1	B	3
(Permissible Short F or G and one other Pin)					
EL82	6	B	1	B	3
EL83	6	C	6	B	3

TUBE	A	B	C	D	Skt
*EL84	6	C	1	B	3
(Permissible Short F or H and one other Pin)					
EL85	6	C	9	B	3
*EL86	6	C	1	B	3
(Permissible Shorts F or H and one other Pin)					
EL90	6	C	8	A	4
EL91	6	C	6	A	4
EL95	6	C	8	A	4
*EL180	12	C	7	B	3
(Normal Shorts C, J)					
†*EL500	6	A	2	A	12
(Normal Shorts C, F, G, H)					
EL803	6	C	6	B	3
*EL821	6	C	1	B	3
(Permissible Short F and one other Pin)					
EL822	6	C	6	B	3
ELL80	6	C	6	B	3
	6	C	6	F	3
*EM85	6	D	1	B	3
(Permissible Short F and one other Pin)					
(†See Magnoval Note on Page B)					
EN93	6	F	6	A	4
EQ80	6	F	9	G	3
*EY80	6	A	1	J	3
(Disregard Shorts)					
*EY81	6	A	2	J	3
(Disregard All Shorts except H-K)					
EY82	6	A	2	J	3
(Disregard All Shorts except H-K)					
*EY83	6	A	1	J	3
(Disregard All Shorts except H-K)					
*EY86	6	J	1	K	8
(Disregard Shorts)					

TUBE	A	B	C	D	Skt
*EY87	6	J	1	K	8
(Disregard Shorts)					
*EY88	6	(See Last Page)			
EZ3	6	A	7	A	8
	6	A	7	G	8
EZ4	6	A	7	A	8
	6	A	7	G	8
EZ11	6	A	7	A	8
	6	A	7	G	8
EZ35	6	B	6	C	1
	6	B	6	E	1
*EZ80	6	A	7	A	8
	6	A	7	G	8
EZ81	6	A	7	A	8
	6	A	7	G	8
EZ90	6	B	6	A	3
	6	B	6	F	3
*GY501	3	J	6	K	8
(Normal Shorts A, F, H-K)					
*GZ30	5	B	6	D	1
	5	B	6	F	1
(Normal Short H, H-K)					
*GZ31	5	B	6	D	1
	5	B	6	F	1
(Normal Short H, H-K)					
*GZ32	5	B	6	D	1
	5	B	6	F	1
(Normal Short H, H-K)					
*GZ34	5	A	1	D	1
	5	A	1	F	1
(Normal Short H, H-K)					
H36	6	G	6	K	1
*H52	5	A	6	D	1
	5	A	6	F	1
(Normal Short H, H-K)					

TUBE	A	B	C	D	Skt
H63	6	F	6	K	1
H1112	6	F	6	D	6
H1208	6	F	6	D	6
HAA91	12	E	6	B	4
	12	E	6	G	4
HABC80	19	F	6	H	3
	19	G	6	G	3
	19	G	6	B	3
	19	G	6	A	3
HBC90	12	F	6	A	4
	12	G	6	E	4
	12	G	6	F	4
HBC91	12	F	6	A	4
	12	G	6	E	4
	12	G	6	F	4
HCC85	17	E	6	B	3
	17	E	6	G	3
HCH81	12	F	6	B	3
	12	G	6	J	3
HD14	1	G	6	E	1
	1	F	6	K	1
HD94	6	A	6	E	1
HD96	25	A	6	E	1
HF93	12	D	6	A	4
HF94	12	D	6	A	4
HK90	12	D	6	A	4
HL90	19	C	8	A	4
HL92	50	C	5	B	4
HL94	30	C	5	B	4
HMO4	6	D	6	A	4
HP6	6	E	6	A	4
HY65	6	A	6	E	1
HY90	35	A	7	E	4

TUBE	A	B	C	D	Skt
HZ90	12	B	6	A	4
	12	B	6	F	4
KBC32	2	F	6	F	1
	2	G	6	E	1
	2	G	6	D	1
KF35	2	F	6	E	1
KK32	1	E	6	E	1
KL35	2	E	6	E	1
KT32	25	C	6	E	1
T61	6	F	6	E	1
KT63	6	B	6	E	1
KT66	6	C	6	E	1
KT71	50	C	6	E	1
KT77	6	A	6	E	1
KT88	6	C	6	E	1
KTW63	6	E	6	K	1
KTZ63	6	F	6	K	1
L63	6	E	6	E	1
L77	6	E	1	E	4
LC900	3	E	2	A	4
LCF80	8	D	6	B	3
	8	D	6	J	3
LCF200	5	D	6	C	11
	5	E	6	K	11
LCF201	5	D	6	C	11
	5	D	6	K	11
LCF801	5	D	3	B	3
	5	E	3	J	3
LCF802	6	D	6	J	3
	6	C	6	B	3
LCH200	5	D	6	H	11
	5	E	6	C	11
LCL84	10	D	6	H	3
	10	F	6	A	3

TUBE	A	B	C	D	Skt
LF183	4	D	6	B	3
*LF184	4	D	6	B	3
(Normal Shorts A, C)					
LFL200	11	C	6	H	11
	11	D	6	A	11
*LL86	10	C	1	B	3
(Disregard Shorts on F, H and one other Pin)					
†*LL521	21	A	1	H	12
(Normal Shorts B, C, F, G)					
†*LL505	27	A	1	H	12
(Normal Shorts B, C, F, G)					
LN119	50	C	6	C	3
	50	F	6	A	3
LN152	6	D	6	J	3
	6	F	6	B	3
*LY88	20	(See Last Page)			
LZ319	9	D	6	B	3
	9	D	6	J	3
LZ329	9	D	6	B	3
	9	D	6	J	3
(1 See Magnoval Note on Page 8)					
M8079	6	E	6	B	4
	6	E	6	G	4
M8080	6	E	1	F	4
M8081	6	E	6	E	4
	6	E	6	F	4
M8083	6	D	6	A	4
M8096	6	C	9	J	3
M8100	6	E	2	A	4
M8136	12	D	10	B	3
	12	D	10	G	3
M8137	12	F	10	B	3
	12	F	10	G	3
M8161	6	E	6	A	4

TUBE	A	B	C	D	Skt
M8162	12	E	10	B	3
	12	E	10	G	3
M8196	6	E	6	A	4
M8212	6	E	6	B	4
	6	E	6	G	4
*M8232	6	G	6	G	4
(Emission and Short Test only; Normal Short E, F)					
M8245	6	C	8	A	4
N14	1	E	6	E	1
N15	3	G	5	F	7
N16	3	F	9	E	1
*N17	3	F	5	C	7
(Normal Short B, F)					
*N18	3	F	5	C	7
(Normal Short B, F)					
N19	3	F	5	F	7
†*N22LL	19	A	1	G	12
(Normal Shorts, H and one other Pin)					
N25	3	G	5	F	7
N77	6	C	6	A	4
N78	6	C	6	A	4
*N119	45	C	1	B	3
(Permissible Short F or H and one other Pin)					
N144	6	C	6	A	4
N147	6	F	6	E	1
*N152	21	C	1	B	3
(Permissible Short F or G and one other Pin)					
N153	15	C	6	B	3
*N154	16	C	9	B	3
(Permissible Short F and one other Pin)					
N155	6	C	3	B	3

TUBE	A	B	C	D	Skt
N329	16	C	7	B	3
*N359	21	C	9	B	3
(Permissible Short F and one other Pin)					
*N369	16	C	6	C	3
	16	E	6	A	3
(Permissible Short F and one other Pin)					
*N379	15	C	1	B	3
(Permissible Short F or H and one other Pin)					
*N707	6	C	1	B	3
(Permissible Short F, H and one other Pin)					
*N709	6	C	1	B	3
(Permissible Short F, H and one other Pin)					
N727	6	C	8	A	4
OBC3	12	F	6	B	2
	12	G	6	D	2
	12	G	6	E	2
OF1	6	E	6	K	1
OH4	12	E	6	E	1
OM6	6	E	6	K	1
OM10	6	E	6	E	1
OSW3111	6	D	6	D	1
PABC80	9	F	6	H	3
	9	G	6	F	3
	9	G	6	B	3
	9	G	6	A	3
PC86	4	E	3	F	8
PC95	4	E	8	B	4
PC97	4	E	1	B	4
PC200	8	D	6	C	11
	8	E	6	E	11

TUBE	A	B	C	D	Skt
PCC84	7	E	7	B	3
	7	E	7	F	3
PCC85	9	E	6	B	3
	9	E	6	G	3
PCC88	7	D	6	B	3
	7	D	6	G	3
PCC89	7	D	8	B	3
	7	D	8	F	3
PCC189	7	E	6	B	3
	7	E	6	G	3
PCF80	9	D	6	B	3
	9	D	6	J	3
PCF82	9	D	6	B	3
	9	D	6	J	3
PCF86	8	D	6	B	3
	8	E	6	F	3
PCF200	8	D	6	C	11
	8	E	6	E	11
(Checked in TC136 only)					
PCF201	8	D	6	C	11
	8	D	6	K	11
PCF801	8	D	3	B	3
	8	E	3	J	3
PCF802	9	D	6	J	3
	9	C	6	B	3
PCH200	9	D	6	H	11
	9	E	6	C	11
PCL82	16	C	6	C	3
	16	E	6	A	3
PCL83	12	C	6	J	3
	12	G	6	B	3
PCL84	15	D	6	A	3
	15	D	6	H	3

TUBE	A	B	C	D	Skt
PCL85	18	C	6	J	3
	18	E	6	B	3
PCL86	14	C	6	H	3
	14	G	6	A	3
†*PD500	9	G	2	H	12
(Disregard All Shorts except H-K)					
PF9	6	E	6	K	1
PF86	4	F	6	J	3
PFL200	16	D	6	A	11
	16	C	6	H	11
PH4	6	E	6	E	1
PL36	25	C	1	E	1
PL81	22	C	1	B	3
PL82	16	C	7	B	3
PL83	15	C	6	B	3
*PL84	15	C	1	B	3
(Permissible Short F or H and one other Pin)					
*PL87	16	C	9	B	3
(Permissible Short F and one other Pin)					
†*PL500	27	A	2	A	12
(Normal Shorts C, F, G, H)					
†PL521	15	A	8	H	12
PLL80	12	C	6	B	3
	12	C	6	F	3
PMO4	6	D	6	A	4
PMO5	6	E	2	A	4
PMO7	6	D	6	A	4
PY32	29	A	3	E	1
*PY80	19	A	2	J	3
(Disregard All Shorts except H-K)					
*PY81	17	A	2	J	3
(Disregard All Shorts except H-K)					
*PY82	19	A	2	J	3
(Disregard All Shorts except H-K)					

TUBE	A	B	C	D	Skt
*PY83	17	A	2	J	3
(Disregard All Shorts except H-K)					
*PY88	30	(See Last Page)			
QA2400	6	E	6	A	4
QA2401	6	E	1	F	4
QA2404	6	E	6	B	4
	6	E	6	G	4
QA2406	12	E	10	B	3
	12	E	10	G	3
QA2407	6	B	6	A	4
	6	B	6	F	4
QA2408	6	E	6	A	2
	6	E	6	D	2
QB309	12	E	10	B	3
	12	E	10	G	3
QB329	12	D	10	B	3
	12	D	10	G	3
QB339	12	F	10	B	3
	12	F	10	G	3
QEO3/10	6	C	9	J	3
(†See Magnoval Note on Page B)					
*QEO5/40	6	C	7	E	1
(Normal Short A, D)					
QM559	6	E	6	B	4
	6	E	6	G	4
QQEO2/5	12	C	10	A	3
	12	C	10	C	3
QQEO3/12	12	C	10	A	3
	12	C	10	C	3
QS2404	6	E	6	B	3
	6	E	6	G	3
QS2406	12	E	10	B	3
	12	E	10	G	3
QQVO2-6	12	C	10	A	3
	12	C	10	C	3

TUBE	A	B	C	D	Skt
QQVO3-10	12	C	10	A	3
	12	C	10	C	3
QVO3-12	6	C	9	J	3
*QVO6-20	6	C	7	E	1
(Normal Short A, D)					
RZ	2	F	6	E	1
*R12	6	J	6	K	3
(Insert two tube leads into Pins 3 and 4. Touch cap lead to top lead on tube.)					
*R17	6	A	1	K	8
(Disregard All Shorts except H-K)					
*R18	6	A	1	K	8
(Disregard All Shorts except H-K)					
*R19	1	H	1	K	8
(Disregard Shorts)					
*R20	2	H	1	K	8
(Disregard Shorts)					
R144	6	E	6	A	4
SP6	6	D	6	A	4
T2MO5	6	E	6	E	4
	6	E	6	F	4
TD24	12	C	10	A	3
	12	C	10	C	3
*TJ-880	6	C	3	B	3
(Normal Shorts A, F)					
TT23	12	C	10	A	3
	12	C	10	C	3
TT24	12	C	10	A	3
	12	C	10	C	3
*U26	6	H	1	K	8
(Disregard Shorts)					
*U41	1	H	2	K	1
(Disregard Shorts)					
*U49	6	H	1	K	8
(Disregard Shorts)					

TUBE	A	B	C	D	Skt
*U50	5	B	6	D	1
	5	B	6	F	1
(Normal Short H, H-K)					
*U52	5	A	6	D	1
	5	A	6	F	1
(Normal Short H, H-K)					
U70	6	B	6	C	1
	6	B	6	E	1
U74	35	B	6	E	1
U76	35	B	6	E	1
U78	6	B	6	A	4
	6	B	6	F	4
*U119	38	A	2	J	3
(Disregard Shorts except H-K)					
U147	6	B	6	C	1
	6	B	6	E	1
U149	6	B	4	C	9
	6	B	4	F	9
U151	6	B	6	A	4
	6	B	6	F	4
*U152	19	A	2	J	3
(Disregard All Shorts except H-K)					
*U153	17	A	2	J	3
(Disregard All Shorts except H-K)					
*U154	19	A	2	J	3
(Disregard All Shorts except H-K)					
*U192	19	A	2	J	3
(Disregard All Shorts except H-K)					
U291	29	A	3	E	1
*U319	19	A	2	J	3
(Disregard All Shorts except H-K)					
*U381	38	A	2	J	3
(Disregard All Shorts except H-K)					
U707	6	B	6	A	4
	6	B	6	F	4

TUBE	A	B	C	D	Skt
U709	6	A	7	A	8
	6	A	7	G	8
U4020	2	F	6	E	1
UABC80	28	F	6	H	3
	28	G	6	F	3
	28	G	6	B	3
	28	G	6	A	3
UBC41	14	F	4	F	9
	14	G	4	E	9
	14	G	4	C	9
UBC81	14	F	10	B	3
	14	G	10	F	3
	14	G	10	H	3
UBF80	17	F	6	B	3
	17	G	6	G	3
	17	G	6	H	3
UBF89	19	E	6	B	3
	19	G	6	G	3
	19	G	6	H	3
UC92	9	E	2	F	4
UCC85	26	D	6	B	3
	26	D	6	G	3
UCF80	27	D	6	B	3
	27	D	6	J	3
UCH80	14	D	6	B	3
	14	F	6	J	3
UCH81	19	E	6	B	3
	19	F	6	J	3
UCL82	50	C	6	C	3
	50	E	6	A	3
UCL83	38	C	6	J	3
	38	E	6	B	3
UCL86	43	C	6	H	3
	43	F	6	A	3

TUBE	A	B	C	D	Skt
UF80	19	D	1	B	3
UF85	19	D	1	B	3
UF86	12	D	2	J	3
UF89	12	D	7	B	3
*UL84	45	C	1	B	3
(Permissible Short F, H and one other Pin)					
URIC	2	F	6	E	1
UU12	6	A	7	A	8
	6	A	7	G	8
*UY82	50	A	2	J	3
(Disregard Shorts except H-K)					
*UY85	38	A	2	J	3
(Disregard All Shorts except H-K)					
*UY89	31	A	2	J	3
(Disregard All Shorts except H-K)					
V2M70	6	B	6	A	4
	6	B	6	F	4
V741	6	E	1	F	4
V884	6	E	6	A	4
V886	6	D	6	A	4
VP6	6	E	6	A	4
VP12D	12	F	6	K	1
	12	G	6	E	1
	12	G	6	D	1
W17	1	F	5	F	7
W25	1	G	5	F	7
W26	1	G	5	F	7
W61	6	E	6	K	1
W63	6	E	6	K	1
W76	12	E	6	K	1
W77	6	E	6	A	4
W147	6	E	6	K	1
W149	6	E	6	F	9
W179	6	D	6	B	3

TUBE	A	B	C	D	Skt
W719	6	C	6	A	2
	6	C	6	D	2
W727	6	D	6	A	4
X14	1	G	6	E	1
X17	1	F	5	D	7
X18	1	F	6	D	7
X20	1	F	6	D	7
X25	1	F	6	D	7
X63	6	E	6	E	1
X64	6	E	5	K	1
X65	6	E	6	E	1
X66	6	E	6	E	1
X71M	12	E	6	E	1
X75	12	E	6	E	1
X76M	12	E	6	E	1
X77	6	D	6	A	4
X79	6	E	6	B	3
	6	F	6	G	3
X119	19	E	6	B	3
	19	F	6	J	3
X155	6	E	6	B	3
	6	E	6	G	3
X719	6	E	6	B	3
	6	E	6	J	3
X727	6	D	6	A	4
X6030	3	G	4	E	1
XC95	2	E	8	B	4
XC97	2	E	1	B	4
XC900	2	E	2	A	4
XCC82	7	D	10	B	3
	7	D	10	G	3
XCC189	4	D	6	B	3
	4	D	6	G	3

TUBE	A	B	C	D	Skt
XCF80	4	D	6	B	3
	4	D	6	J	3
XCH81	3	E	6	B	3
	3	F	6	J	3
XCL82	8	C	6	C	3
	8	F	6	A	3
XCL85	9	C	6	J	3
	9	E	6	B	3
XF183	3	D	1	B	3
XF184	3	D	1	B	3
*XL36	13	A	3	E	1
(Permissible Short A and one other Pin)					
*XL84	8	C	1	B	3
(Permissible Short F, H and one other Pin)					
*XL86	8	C	1	B	3
(Disregard Shorts on F, H, if any)					
XXB	3	F	8	D	9
	3	F	8	E	9
XXD	14	E	6	D	9
	14	E	6	E	9
XXFM	6	F	6	C	9
	6	G	6	E	9
	6	G	6	F	9
XXL	6	E	5	F	9
*XY88	16	(See Last Page)			

TUBE	A	B	C	D	Skt
YC95	3	E	8	B	4
YC97	3	E	1	B	4
YCC189	5	E	6	B	3
	5	E	6	G	3
YF183	4	D	1	B	3
YF184	4	D	1	B	3
Z14	1	F	6	K	1
Z63	6	F	6	K	1
Z77	6	D	6	A	4
Z152	6	D	6	B	3
Z179	6	D	6	B	3
Z719	6	D	6	B	3
Z729	6	F	2	J	3
Z1494	6	D	2	A	4
Z1751	6	E	6	B	4
	6	E	6	G	4
ZD17	1	G	6	F	7
	1	H	6	C	7
ZD25	1	G	6	F	7
	1	H	6	C	7
ZD152	6	F	6	B	3
	6	G	6	G	3
	6	G	6	H	3

ADDITIONAL TUBE SET-UP INFORMATION

These additional tubes can be checked on your Mighty Mite Tube Checker in the following manner.

2AH2 — The 2AH2 can be checked by bending pin 9 in toward the center of the base and use the following settings:

	A	B	C	D	Socket
*2AH2	2	J	3	K	10

(Disregard Shorts)

3DG4 Tube can be checked by connecting a jumper wire between pins 1 and 2 before inserting it into socket.

Set-up is:

A	B	C	D	Socket
3	A	1	E	1

(Normal Shorts, C, H-K)

Although the above test only checks one side of the 3DG4, it is generally true that in rectifier tubes, if one half is good the other half in most cases is good too.

5BC3 Tube can be checked by doing the following:

1. Bend pin 6 toward outside of Tube.
   (Count pins clockwise when viewing tube from pin side.)
2. Insert Tube so that pins 1 & 2 fall into pins 5 and 6 of socket 5.
   (Count pins in counterclockwise direction on socket 5 when inserting tube.)

Settings

A	B	C	D	Socket
5	A	2	C	5
5	A	2	J	5

(Disregard shorts if emission is O.K.)

*6386

Connect temporary jumper wire between pins 1 and 5 on tube base.

Set-up is:

6	E	1	C	3
6	E	1	G	3

(Normal Shorts, G, H-K)

*6EU7 (For Mighty Mites not having socket #13)

Connect temporary jumper wire as on 6386.

Set-up is:

6	F	1	H	3

(Normal Shorts, B, H-K)

7F8 — Connect temporary jumper wire between pins 7 and 8.

7	G	8	C	9
7	G	8	F	9

6R-P10 — Connect temporary jumper wire between pins 5 and 6. Set-up is:

6	C	7	H	3

(Disregard Shorts)

*6R-R8 — Connect temporary jumper wire between pins 5 and 3 on tube base.

6	D	3	A	3

(Normal Shorts, D, J, H-K)

19R-LL1 — Connect temporary jumper wire as on 6386.

19	E	1	C	3
19	E	1	G	3

*20EZ7 (for Mighty Mites not having socket #13) Connect a temporary jumper wire between pins 1 and 5 on the tube base. Set up is:

11	F	1	H	3

(Normal shorts B, C, H-K)

*1219 and *5670 — Connect temporary jumper wire as on 6386.

6	E	1	C	3
6	E	1	G	3

(Normal Shorts, G, H-K)

16AQ3, 20AQ3, 30AE3, 30AG3, EY88, LY88, and PY88 have internal support jumpers that can be varied from manufacture to manufacture. If the test listed below does not work, then use the second test using the jumper wire.

Tube	A	B	C	D	Skt
	#	A	7	C	8

(Disregard shorts except H-K)

If the tube will not give an emission reading after a normal warm up time with the above settings, connect a temporary jumper wire between pins 7, 8, and 9 and use the following settings:

Tube	A	B	C	D	Skt
	#	A	6	G	8

(Disregard shorts except H-K)

Use filament voltage listed under tube in set-up chart section. *Tubes marked with an asterisk (*) indicates that the tube has internal connections. Be sure to read the short test instructions directly below each tube listing before rejecting a tube for shorts.

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